TWO

TREATISES

BUSSCHOF

1676

16336/B

Sold by Moses Pitt at y^e Angel in S^t Paul's Church-yard.

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TWO

TREATISES,

The one Medical,

Of the Gout,

And its

Nature more narrowly ſearch'd into than hitherto; together with a new way of diſcharging the ſame.

By *HERMAN BUSSCHOF* Senior, of *Utrecht*, reſiding at *Batavia* in the *Eaſt-Indies*, in the ſervice of the *Dutch Eaſt-India* Company.

The OTHER

Partly Chirurgical, partly Medical;

Containing

Some Obſervations and Practices relating both to ſome extraordinary caſes of Women in Travel; and to ſome other uncommon caſes of Diſeaſes in both Sexes.

By *HENRY VAN ROONHUYSE*,
Phyſitian in Ordinary at *Amſterdam*.

Engliſhed out of Dutch by a careful hand.

LONDON, Printed by *H. C.* and are to be ſold by *Moſes Pitt* at the *Angel* in St. *Paul's Church-yard*, 1676.

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TO THE
READER.

THIS now about 14 *years since I laboured under an extraordinary pain in both my knees and feet, not knowing whither to turn my self for pain, having used in vain all those means by which I formerly had found some ease. After I had passed five or six weeks in those excessive pains, which sometimes, in spight of my teeth, extorted tears from my eyes, and consumed my flesh as well as my strength, keeping me in a manner always sleepless; I was perswaded to suffer an* Indian *Doctress to come to me, which was of* Quinam, (*whom my Wife commonly employed for the curing of our slaves, and who also had been very succesful in recovering my only*

daughter from a certain difficulty of breathing she had been troubled with for two years together). This Indian *woman being demanded, whether she knew how to cure that painful disease which I was molested with; Answered, she did. But to tell you the truth, it was done by a way of Burning: Which means being by me rejected, out of an apprehension I had of the pain that must needs accompany such a remedy; she said, that then she would prepare something to* mitigate *the pains I suffered, and bring me such a medicine in the afternoon; repeating still, that if I would endure the Caustick or Burning remedy, the pain should ever after stay away: But, for all that, I could not then resolve upon it.*

The woman being gone, upon further consideration, I began to repent that I had refused the use of her Caustick; and thought with my self, that however this proposed remedy should operate, I could feel but one pain at a time, either that of the Gout, or that

of

of the Cauſtick; longing to ſee my Doctreſs again; who being returned, and asked, whether ſhe had ready her matter for the Cauſtick, anſwered ſmiling, ſhe had: At the ſame time drawing it forth out of her pocket, and deſiring me that I would ſuffer her to try her art and skill upon me; which having at laſt agreed unto, ſhe went preſently to work; having demanded a lighted candle, and ſolicitouſly ſearch'd for that part of the place affected where the greateſt pain was: And thereupon ſhe burned with her Moxa *(of which hereafter) on my feet and knees, (to my beſt remembrance) about twenty little Eſcars, which looked like little gray ſpecks, without raiſing any bliſters, or cauſing any after-pain; whereupon alſo all the pain of the Gout vaniſh'd. All this operation was finiſhed within leſs than half an hour, without any bodies hearing me complain of pain. And I herewith declare, that even whilſt the burning laſted, I found my ſelf much inclined to ſleep; and that in ſuch a manner,*

that after the operation was over, I was so overcome by sleep, that I slept very quietly near 24 hours together, without ever waking; whereas afore, by reason of the cruel pains, I had not been able to sleep at all for several days and nights together. Being awakened, I found, 'tis true, my feet and knees yet much swelled; but in a few days after I was also freed from those tumifying humours, by the little openings made by the same Caustick, so that I was able to return to the work of my vocation; most heartily thanking God Almighty for his goodness to me, and duly acknowledging the operation of this Indian *woman, admiring withal the powerfulness of this remedy against so contumacious an evil, as is the Gout. There near passed full 27 months e're I heard any thing of a Gouty pain, and I began to be full of hope it would for ever have forgot and quitted me, according to the promise of my Doctress; which not long after, to my great sorrow, died. True it is, that after the time named, I had once, or at most*

twice

twice in one year ſome grudgings of that diſeaſe; but never any ſore fit: Only about four years ago, when I fell into a very hot Fever of nine days continuance, without hope of life, that Fever changed, and ended in the Gout; all the pains of which, in a very ſhort time, I freed my ſelf from, by means of the ſaid Cauſtick; ſo that I proteſt candidly, that being now in a Fever again, I long as much and more for a fit of the Gout, as I formerly was wont to dread it; knowing it to be an argument of the ſtrength of the heart, when a Fever determines in the Gout: Upon which ſcore the famous Crato, *Phyſitian to three Emperors, and the learned* Sennertus, *were wont to comfort Gouty men, by telling them that this evil tended to health.*

Now, from the day that I was ſo ſoon and with ſo ſlight pains cured of the Gout, I have given my thoughts liberty to expatiate upon the nature of the Gout: And firſt of all, to call in queſtion, whether Phyſitians hitherto have had a right notion, and given a

true account of the nature and qualities of this disease: And after a rigorous enquiry into the matter, and upon the consideration of this sovereign remedy, I concluded, that this disease must needs have another immediate or proximate cause, seat, &c. than had been hitherto by any man clearly explained and proved.

Whereupon I thought good to discover to the world my thoughts of this whole matter, although at first I intended to have kept them only for my best friends and nearest relations. I think, I have herein detected some things for the improvement of Physick, and for the relief of those that are subject to this disease, which else is by most men exclaimed against as incurable; and does so disfigure many a comely person, that he seems not to be the same he was before. In the doing whereof, my design is to do good to my fellow-creatures, and to lay out this talent for their ease and comfort; as also to open a way for intelligent and studious men to search into, and find

find out the nature not only of the Gout, *but alſo of divers other diſeaſes that have any affinity therewith; ſuch as are* Head-pains, Tooth-ach, Pleuriſies, Colick, *and even the* Falling-ſickneſs *it ſelf. As I ſhall be able, in time, if* God *vouchſafe me life, more clearly to make out; eſpecially, if the truth here delivered be embraced, and this ſmall work encouraged, and the remedy here recommended put in practice; which I heartily wiſh may be done according to my preſcript, before it be prejudged, and rejected.*

THE

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Adverti ſe-

THE
GOUT,

More narrowly

SEARCHT, and FOUND out;

Together with

The certain CURE thereof.

CHAP. I.

Of the Gout, *and what it is.*

Theoph. I Have underſtood with joy, *Theodidactus*, that you have a ſingular opinion of the *Gout*, its Cauſe, Seat, Paſſages and Ways; as alſo, that you know the true and genuine Remedy againſt this cruel Diſeaſe, which is alſo come to your door, no leſs than it

it had assaulted your Father and Father-in-Law, who were so grievously tormented therewith, that they became altogether helpless, and were so spent and consumed thereby, that before they arrived to any considerable old age, they fell into their graves. Whereas I see you, to admiration, advanced to so great an age, and in so much vigour, as if you had never known or had any Podagrical person in your Family, or among your Relations, or had never been subject your self to that merciless disease. Hence it is, that I most heartily intreat you, that you would be pleased to explain this matter to me, according to the good inclinations, which I have always perceived in you, of doing good to your Neighbour.

Theodid. My dear *Theophilus*, although in doing this I step somewhat out of my Vocation; yet Christian charity constrains me to comply with your desires herein, and not to confine this knowledg of mine to my particular Friends and Relations; on condition

dition only, that at this time you do ask me no more queſtions, than what ſhall be pertinent to make us come to the knowledg of the *Gout* and the *Remedy* thereof.

Theoph. I moſt kindly thank you for your goodneſs, and promiſe you to contain my ſelf within the bounds preſcribed.

Theodid. Very well; be pleaſed therefore to propoſe your queſtions in that order, and I ſhall anſwer you to the beſt of my knowledg.

Theoph. To recover gouty perſons, and to free them from their pains (without which all the bleſſings of this life are inſignificant,) what is above all things neceſſary?

Anſw. To have a thorow knowledg of the Diſeaſe and of the true Remedy thereof; both which are equally neceſſary, inſomuch that the one without the other is not valuable.

Queſt. Why is it, that for accompliſhing a happy Cure, there is firſt of all required a well-grounded knowledg of the Diſeaſe?

An. Becauſe 'tis impoſſible to cure a diſeaſe according to Art, if the nature thereof be hid from the Artiſt: And the want of this is the chief reaſon, why the care and pains taken by ſo many learned Phyſitians hath proved ſo ineffectual in the Gout.

Qu. What then are the Requiſites to attain to the true knowledg of this Diſeaſe?

An. There is required a ſolid knowledg of theſe following particulars:

1. *Of the next and ever-concomitant Cauſe of the Gout.*

2. *Of the Seat of this Evil.*

3. *Of the Part affected.*

4. *Of the Ways and Paſſages, through which this Evil takes its courſe.*

5. *What are the inſeparable ſigns thereof?*

6. *What Symptoms commonly accompany it?*

7. *That the Symptoms of this Diſeaſe be rightly diſtinguiſhed.*

If you err not in theſe main points, you

you are in the right way of arriving to a happy cure of this Malady.

Qu. Do you underſtand by the name of *Gout*, all pain in the Limbs?

An. No; but that pain which in ſharpneſs and fierceneſs exceeds all other, and that which I mean to deſcribe.

Qu. To let paſs the name of the *Gout*, pray give me a full and plain deſcription of the Diſeaſe it ſelf?

An. The *Gout* is a preternatural, inward, deep-lurking, and for the moſt part inviſible little ſwelling within in the *perioſtium*, that is, the membrane that enwraps all Bones; cauſed from a dry and cold ill-natured damp or vapor, which out of the arteries, by the expelling vertue of the heart, is driven out into the place that is between the bone and the *perioſtium*, for the moſt part into ſuch Limbs of the Body as are about the Joints; in which this vapor being and remaining impacted and incloſed, and diſtending that moſt ſenſible membrane, produces thoſe violent and in-

tolerable pains, whereby the motion of thoſe Limbs is incumbred and diſpoiled, and many other grievous accidents occaſioned.

Qu. Doth this deſcription differ much from that which hath been hitherto delivered of this Diſeaſe?

An. It doth: Whence it is, that I exceedingly apprehend, I ſhall incur ſharp cenſures from many.

Qu. But let this paſs; let us weigh rather your deſcription in its principal parts. And, *Firſt*, I do remember, that you make the Gout to be a *preternatural* ſwelling; whereby you doubtleſs imply, that the Gout is a Diſeaſe wherein violence is done to nature in ſome part or other of the Body. But this is a novelty to me, that you add, *viz.* that it is an *inward deep-lurking*, and *for the moſt part inviſible little ſwelling*, and that that ſwelling is cauſed by a *damp*, *&c.* intreating you, that you would vouchſafe to expreſs this more plain, and to render reaſons thereof. And firſt, why you call it an *internal* and *deep-lurking* tumor?

An.

An. The better to diſtinguiſh it from other windy ſwellings, in reſpect of its ſeat: For, whereas *thoſe* other lye between the fleſh and skin, *this* lies deep, underneath the membrane that covers the bone; as hereafter ſhall be more largely proved.

Qu. But why do you add, that it is a *little* and *moſtly inviſible* ſwelling?

An. Becauſe it is ſo indeed.

Qu. But pray, Sir, take care that you run not againſt ſenſe, out of a blind zeal of producing a novelty. For, is not the tumor which manifeſts it ſelf in the Gout, big and conſpicuous enough?

An. You do not diſtinguiſh between the Diſeaſe it ſelf and the Symtom, which is the ſtumbling ſtone of many even learn'd men. And the want of this very diſtinction ſeems to me to have been the main, if not the only obſtacle, why they have not lighted upon the true cauſe of the Gout, and why they have taken *quid pro quo*?

Qu. What then is to be done, not to miſtake herein?

An. You muſt ever make a difference between the ſwelling, which is cauſed by the morbific gouty matter, and that which is conſequent to the Gout; and this is to be laid as a fundamental Truth, never to be remov'd, *viz.* That the humour, which makes the external palpable and viſible ſwelling in the Gout, is not the Gout or dolorifique matter. Which are not ſo much my words, as the words of that famous Phyſitian of *Dort*, called *John Van Beverwyck*, deliver'd by him in his Book of the Gout, and which he hath borrow'd out of the deſcription of that diſeaſe, which that learned and experienced Profeſſor of Phyſick at *Wittenberg*, *Daniel Sennertus*, left behind him. Which alſo is the reaſon that I ſhall place that aqueous and ſerous tumor amongſt the ſymptoms of the Gout; where alſo it is to be handled, and not here, where we ſpeak of the Diſeaſe it ſelf.

Qu. What,

Qu. What, is not the humor, that cauſes the outward and viſible ſwelling, the Gout or dolorific matter?

A. No, they differ very much from one another, and may be ſufficiently diſtinguiſht by thoſe that will attentively conſider.

Qu. Wherein conſiſts this difference?

Anſ. In this, that the one is the *cauſe* of the Diſeaſe, the other a *ſymptom*; which will be made very clear, when we ſhall come to treat of this ſymptom. But in part to ſatisfie your curioſity, pray mark the ratiocination of the lately named *Beverwyck*, ſaying in the quoted Book: *That the humour which makes the ſwelling, is not properly the peccant matter, is from hence evident; becauſe that in the beginning, before the part ſwells, the greateſt pain is felt, and the ſame grows leſs, when the ſwelling appears.* 'Tis true, that that learned man adhereth ſtill to the opinion of the ſaltiſh *Serum*, affirming that it is a ſerous humor, pervaded by a ſalin acri-

mony, that cauſes the Gout. But herein he, as well as the great *Sennertus*, hath miſtaken. Mean time, 'tis certain, that the external tumor is not the morbid matter it ſelf, for the reaſon given; and, which is more, ſome podagrical perſons endure great pain, without the appearance of any viſible ſwelling.

CHAP. II.

Of the inward Tumour of the Gout, and how it is moſtly inviſible.

Qu. I Shall for the preſent reſt contented with the proof alledged, until we come to the *ſymptoms*: But, when this ſymptomatical or accidental ſwelling of the Gout is preſent, do you then obſerve two ſorts of ſwelling in this Diſeaſe, one *inward*, the other *outward*?

An. I do ſo; of which two, the firſt is that which I ſay in the deſcription to be a ſwelling that is *little*, and *for the moſt part inviſible*? *Qu.*

Qu. Why do you ſay ſo?

An. Becauſe it is indeed ſmall, and for the moſt part cannot be ſeen by the ſharpeſt eye of the body, though it be ſeen by the eye of reaſon. For, although you outwardly perceive no ſwelling, you may not thence infer, that there lurks none within, foraſmuch as the contrary is true in theſe and other ſwellings. See the proof hereof in a couple of obſervations of the skilful Phyſitian and Chirurgian *Hildanus* in his ſecond Part, the 37*th.* and 38*th.* concerning dangerous and deſperate tumors in the muſcles of the ſtomach, in which nothing preternatural of ſwelling, or other diſorder could be ſeen outwardly.

Qu. If this tumor cannot be perceived by the eye, whence do you then know that there is an inward one?

An. From the violent, pungent, beating, diſtending, and continual pain, to be eaſily perceived by ones finger.

Qu. But, it ſeems, by what you intimate

timate in the deſcription of the Gout, that ſometimes this tumor may be ſeen?

An. Yes, it may; for at times it appears plainly enough, though few Artiſts take it for a gouty ſwelling, miſled by the external appearance of it, which is in the form of a ſmall hard pimple on the place of the part affected; of which you have a manifeſt proof in *Pareus*, the French Chirurgian, treating of a diſtemper in a young woman at *Bourdeaux*, that had ſuch a tumor on her thigh; though *Pareus* doth not record it for ſuch.

Qu. When may this tumor be perceived by the eye?

An. Then chiefly, when the gouty cauſe attacks the Patient, not about the joints of the limbs, but in or about the middle of thoſe places, with a boyling pain, wherein nature labours as much as ſhe can (though ſhe be not ſtrong enough) to expel the peccant matter. At which time, if you obſerve it carefully, ſome tumor appears,

as

as was said above. This I have found not only in my self, but very notably in another, that was a young man, employed here in the Foundery of *Batavia*, called *Martyn Smith* of *Breslaw*, who having the Gout in his right foot, without a considerable afflux of humors, the evil setled on the midst of his foot, in the form of a protuberant hard pimple or button: Which I also, by the help of God, did presently cure, so that he the same hour, without any pain, went out of the house to his Work-house, which can be attested by the Physitian *Thomas Flory*, and the chief Chirurgian *Warner Leuretius*, as eye-witnesses, that saw it with great admiration.

CHAP. III

Of the next and always concomitant Cause of the Gout

Qu. After you have sufficiently made out, that the gouty matter

matter cauſes a ſwelling, for the moſt part inviſible; be pleaſed to explain to us what is the next and always accompanying cauſe of this tumour; which to know, I think to be of great importance.

An. You judg aright; foraſmuch as the Cure hath always a reſpect to the Cauſe of the diſeaſe; and ſince 'tis in vain to hope for a recovery, as long as there is an error or miſtake about the peccant or gouty matter.

Qu. Have Phyſitians been of one opinion herein?

An. No: For ſome have aſſigned the cauſe to be a ſlimy and cold humor; ſome, a mixture of gall and ſlime; ſome, a crude, indigeſted and impure blood; others, a ſerous humidity, mix'd with an acrimonious ſaltneſs; others, winds, with a mixture of the four known humours; others, ill-conditioned winds alone.

Qu. Whence, I pray, ariſeth this great diverſity of opinions?

An. From thence only, that (as hath been already intimated) they have

have not diſtinguiſh'd the *Gout* from its *ſymptoms*; which hath ſo abuſed them with the notion of the humors, that they have put thoſe out of the liſt of *gouty* perſons, who in their Gout perceived no afflux of humors, abſolutely requiring the ſame in this diſeaſe; notwithſtanding that ſuch as find no ſerous ſwellings in their gouty diſtemper, do feel full as much pain as others that are wont to find that afflux, whoſe grievous pains alſo are conſiderably abated upon the ſwelling.

Qu. Which then is, in your judgment, the next and *immediat Cauſe*?

An. We have expreſſed it in our above-recited deſcription of the Gout, to wit, that it is a Vapor or Damp, dry and cold, and mixed with malignity.

Qu. But many will look upon this as an airy and windy fancy, and no ſolid truth.

An. If men ſhall deveſt themſelves of prejudice, and maturely conſider all what hath been ſaid, and is yet to follow

follow; I ſhall then expect a more favourable judgment, and an unanimous conſent to my doctrine.

Qu. According to your theory, the Gout is to be reckoned among Windy ſwellings?

An. So it muſt be, becauſe grounded upon experience, the Miſtreſs of Fools.

Qu. But is not this a quite new opinion; or hath there ever been any learned man that hath delivered the ſame?

An. When I lately enumerated unto you the various opinions concerning the cauſe of the Gout, you may remember, that the laſt of them was that which placeth it in meer winds, Now, among thoſe Doctors, *Sennertus* reckons *Guainerius* and *Matthæus de Gradibus*, two eminent Phyſitians; and, as far as I can find, the *Chineſe* Doctors are all of that mind. Beſides, that ancient Phyſitian, *Guido de Culiaco* (though in the Gout he follows the *Humoriſts*) relates, that he had read in ſome preſcriptions of

health

health given to the Popes of *Rome*, that this diſeaſe did ariſe from *winds*; and the Royal Chirurgian *Pareus*, *p.* 534. aſſigns, for the certain cauſe of the running Gout, *a very thin fuliginous matter*, which is nothing elſe but a ſubtile ſmoaky damp, or ſpirituous ſubſtance.

Qu. But *Pareus* doth not ſpeak ſo of the other kind of Gout.

Anſ. 'Tis true, that he affirms it of the *running Gout*; but then I muſt ſay, that that kind doth not at all in its eſſence, or next cauſe, differ from the other Gout, but only in ſome qualities, relating to the thinneſs and thickneſs of damps; thoſe, from whence proceeds the running Gout, thinner and ſubtler; and thoſe which cauſe the other Gout, courſer and thicker. And 'tis notorious, that almoſt all intelligent Phyſitians aſſign *damps* for the next cauſe of Tooth-aches, Head-aches, Pleuriſies (at leaſt baſtard Pleuriſies), Colicks, and Epilepſies: Diſeaſes which in name indeed, place, and ſome ſymptoms, differ

fer from the Gout, but not in their true eſſence; they being ſo near a-kin to one another, that they acknowledg but one and the ſame cauſe.

Qu. 'Tis true, that ſome learned men have affirmed, winds or damps to be the next cauſe of the Gout; but others have rejected that opinion, and for their ground of doing ſo, I ſhall produce but one argument for all, which *M. Beverwyck* alledgeth out of *Sennertus* in his Treatiſe of the Gout, ſaying, *All ſickneſſes which ariſe from winds, do not laſt ſo long as the Gout*; and making uſe of this reaſon for his denying the *flatus* or winds to be the true Cauſe of the Gout. And further in his *Medicina*, *p.* 62. treating of Tumors in general, he declares, *That the windy ſwellings do vaniſh eaſieſt of all.* What you can ſay to this objection, I long to hear.

Anſ. Thoſe great men ſpeak here only in *general* of windy tumors; and what they ſay is only true of ſuch windy ſwellings as lurk under the *skin*,

skin, or in fleshy parts; not in those that lie in deep parts, and under firm and thick membranes, as in the Gout, and other hidden or manifest swellings, raised from latent winds: See the proof hereof in *Hildanus*, *p.* 6. *obs.* 40. in a *Tympanites* that was refractory to all remedies.

Qu. What then is the true cause why the Gout is so long a curing? Is the gouty cause (the damp) so difficult to be with speed removed and evaporated?

Ans. The gouty damp is easy enough to be evacuated, and 'tis even forward to be exhaled; but there is a notable obstacle which hinders the speedy performance of it. And that is this; The impacted and inclosed damp, which causeth the windy tumor in the Gout, seeks a passage to issue out at, but finds none; partly because of the grosness of the damp; partly and chiefly by reason of the close and firm membrane of the bone, under which it lurks; especially since the place, in which this cold damp

lodgeth, enjoys but little warmth, for the attenuating of this groſs damp, and expelling it through the ſmall pores of that membrane.

Qu. But, I pray, Sir, let me know what is the chief motive that hath induced you to make Damps the only *next* cauſe of the Gout?

Anſ. Firſt, This remedy which I here offer, as that which ſuddenly cures this diſeaſe: For, if it be true, that the *Medicine declares the Diſeaſe*, as Phyſitians affirm with their Maſter *Hippocrates*; I muſt then conclude, that no humors, but only a Spirituous thing, is the cauſe of this Diſeaſe. *Secondly*, obſerving the ſudden motion of the gouty matter, ſometimes diſlodging in a very ſhort time from one limb to another, from the hand to the foot, from one foot to the other, *&c.* flying as 'twere with ſwift wings from above to beneath, and back again; I find my ſelf obliged to judg, that theſe are not Humors, but ſome Spirituous matter able to do ſuch things.

CHAP.

CHAP. IV.

Of the Qualities of the damps that cauſe the Gout.

Qu. OF what quality, I pray, are theſe gouty Damps?

Anſ. The above-recited deſcription ſaith, that they are dry, cold, and ill-conditioned.

Qu. Why do you ſay they are *dry*?

Anſ. The better to diſtinguiſh theſe Damps from windy *Humors*.

Qu. Why cold? Is there not a hot as well as a cold Gout?

Anſ. As there is but one next cauſe, which for quality is always cold; ſo is the diſtinction of a hot and cold Gout, vain: My opinion agreeing with that of *Fernelius*, that all Gout ariſes from a cold cauſe.

Qu. But with what reaſons can you maintain this opinion?

Anſ. Irrefragably by the remedy it ſelf; as alſo by the pruriency and

ſhivering which gouty perſons, upon the motion of this cold damp, do commonly feel, eſpecially in thoſe parts through which it takes its courſe; as alſo happens in *Epilepſies*, *Pleuriſies*, *Colick*, and the like, that come from cold damps.

Qu. But ſoft and fair: Your laſt proof taken from *ſhivering* doth not hold, as *Beverwyck* objects; for then ſhould the matter of hot Fevers be alſo cold, which paſſing through parts endowed with the ſenſe of feeling, not only cauſe ſhivering, but alſo claſhing of teeth.

Anſ. This is not ſaid from well-grounded knowledg; ſince it hath never yet (that I know) been ſatisfactorily proved, that *Hot Fevers* (as they are called) muſt needs proceed from an hot cauſe; and upon a thorough diſquiſition, it might perhaps be found, that they have been produced from ſome cold matter or other; which I think at leaſt to be half proved, becauſe ſometimes an hot Fever ends in the Gout; as I have found,

not

not to go far, in my ſelf, when I was in the 50*th*. year of my age. It ſometimes alſo comes to paſs, that the Gout determines in an hot Fever; as appears from what *Beverwyck* ſaith in his Book of the Gout, *p*. 110. ſpeaking of the ways through which the gouty matter takes its courſe. *The damp*, ſaith he, *turns back into the veins, and aſcends up again to the noble part* (meaning the heart,) *where it raiſes hot Fevers, Anguiſh, and the like evils; or ſhoots ſuddenly into ſome other limb, whereby the pain that is in the hand, is ſoon after felt in the foot.*

Qu. But is not that notable inflammation, which is often ſeen and felt in the Gout, ſufficient proof that there is a ſort of Gout which comes from heat?

Anſ. This is a Symptom or accident in the Gout, which is not cauſed by the next and always accompanying cauſe of it, but by the violent pain; as I ſhall more clearly make out, when I come to ſpeak of this Symptom:

But 'tis a Symptom, (not to pass that by in this place) which hath strangely misled those who have mistaken it for a mark of the Gout, as *Sennertus* and others do ackuowledg.

Qu. Is this damp also ill-conditioned and malignant?

Ans. So 'tis judged by considerable and experienced men, as well as by my self, and that from the intolerable pain and other accidents. So doth that old Master *Guido de Culiaco*; and *Pareus in his 7th. Book, ch.* 2. proves it by two Examples; and our new Medicine confirms the same. Besides, the fœtid damps of the Gout do plainly speak this malignity, which is perceived both at the time of the act of burning, and after it; that being such, that sometimes both the Patient, and the Person that administers the Caustick, and dresses the part, are ready to fall away. And this is most of all found at the dressing of the little wounds, when they begin to omit good store of moisture. For as soon as you shall in a morning open the

little

litrle Plaiſters, you will be ſo ſtruck with a ſtrange ſtinking ſmell, that it will almoſt caſt you into a ſwound. 'Tis very probable, that this ſtuff is already malign before it be caſt out from the heart into the limbs; yet remaining for a while wedged in the limbs, from the evaporation obſtructed, its malignity is heightned. Hence it is not adviſable, to ſerve this burning or dreſſing upon any one that is faſting; but 'tis beſt, that both the Patient and the Agent ſhould firſt breakfaſt, and take a cordial.

Qu. But, is it poſſible for Winds to occaſion ſo much miſchief?

Anſ. Very poſſible; and then eſpecially, when they are more peccant by their quality than quantity: So *Hippocrates* in his golden Tract of *Flatus*'s doth not without cauſe judg of Winds, that moſt of all the grievous and dangerous Diſeaſes owe their original to them.

Qu. But can Winds breed ſuch vicient pain?

Anſ. They can; chiefly when the

membranes (the main inſtrument of the ſenſe of Feeling) are by them attacked and diſtended.

CHAP. V.

Of the Part affected, and Seat of the Gouty matter.

Qu. WHich then, in this painful Diſeaſe, is the part that is attacked and offended by theſe Winds?

Anſ. Principally, if not only, that ſenſible membrane called the *perioſtium*, that is, that membrane which immediatly covers the bones.

Qu. Do you not think, that the membranous ligaments do alſo ſuffer here, or rather the membranes of the ligaments?

Anſ. No; but I agree herein with *Galen*, that they have no feeling; the which is alſo confirm'd by the learned *Barbette* in his *Praxis*, *chap.* 5. *p.* 30.

Qu.

Qu. What do you underſtand by the *Peri-oſtium*?

Anſ. That ſingle membrane or film, whereby the Author of Nature hath outwardly inveſted and covered all the bones of our body, and which is a cloſe and firm ſubſtance, extendible, and very ſenſible.

Qu. Doth the gouty matter fall from without upon this ſenſible *peri-oſtium*, fretting and biting it by its acrimony?

Anſ. Not ſo; for then it could not cauſe ſo intolerable a pain, or the right Gout.

Qu. Where then are we to look for the true ſeat of the gouty matter?

Anſ. No-where elſe but between the membrane and the bone.

Qu. Wherein then conſiſts the genuine eſſence of this Diſeaſe?

Anſ. In the violent diſtenſion or ſtretching of this ſenſible membrane by the Winds, whereby this membrane being forced out of its due and natural form and ſituation, excites ſo violent a pain.

Qu.

Qu. Whence do you infer that the gouty matter lies so deep, and particularly between the membrane and the bone it self?

Ans. Not only from the distending pain, (which is to me proof sufficient) but also from the contumaciousness of the Gout, which made *Hippocrates* say in his 6*th. Book*, *aph.* 49. That the *Gouty fit doth not cease before the fortieth day*. And truly, whereas all other windy tumors, that are not lodged so deep, are in a short time made to evaporate; this windy swelling of the Gout lying so deep, and lurking under so firm and close a membrane, (and besides, in a place of little warmth, and it self coming from a cold cause) cannot be easily brought to a quick evaporation, but by such a kind of remedy as ours is.

Qu. Have not the old and new Masters mistaken the Part affected, and the true Seat of the Gout?

Ans. Certainly they have: For, (to speak of the part affected, and the seat together,) I must first alledge the opini-

opinion of *Galen*, (as 'tis cited by *Beverwyck*;) he affirming, that the gouty moiſture doth flow into the hollow of the joynts, and there forces aſunder the bones; whereby the ligaments and membranes, that faſten them together, are ſo violently expanded, that they cauſe that exceſſive pain.

Qu. Hath this ſentiment of the great *Galen* been generally judged and received to be conform to truth?

Anſ. It hath been rejected by many, as by *Beverwyck* and others; and by others maintained.

Qu. Where do thoſe that contradict *Galen*, find the Part affected, and the Seat?

Anſ. In the ligaments and membranes that tye the bones together, being penetrated and ouzed thorough by a ſharp humor.

Qu. What hath moved thoſe that are of the later opinion, to reject *Galen*'s Doctrine?

Anſ. See and read *Beverwyck* and others.

Qu.

Qu. But how doth *Galen* refute their opinion, who ſay, that the gouty matter ouzeth thorough the ligaments and membranes?

Anſ. Thus, that never a gouty perſon hath been perceived to have convulſions or drawings of the limbs: Which yet muſt needs happen, if the warm humor did paſs through the ligaments and membranes.

Qu. But theſe alledge, to ſtrengthen their opinion; *Firſt*, that the pain, as ſoon as the limb is but touched, preſently increaſeth. *Secondly*, the debility and troubleſome motion of the part. *Laſtly*, the laxity of the ligaments, which being ouzed thorough by the humor, do ſtretch, and ſometimes cauſe diſlocation, Are not theſe ſolid reaſons to perſwade you and all others that they have hit right?

Anſ. Not at all; for their proof is lame in all its parts. And, not to repeat the irrefragable proof of *Galen* againſt their opinion, the pain doth *not* increaſe when the limb is but touch'd and moved, becauſe, forſooth!

ſooth! the gouty matter hath ouzed through the ligaments and membranes: No; for, not theſe, but the *perioſtium* is the part affected in this evil, which being by the gouty damp already diſtended, is upon the touching, or leaſt motion of the limb, irritated a new, and ſo cauſeth new pain. Where I eſtabliſh this for a certain truth, that never the gouty matter, but only the accidental affluxed humor ouzeth through the ligaments, ſo as to occaſion ſtretching and diſlocation: Which we intend more fully to make out, when we come to ſpeak of this accident of diſlocation.

Qu. But againſt *Galen*'s proof, the defenders of this opinion alledge, that 'tis no ſtrange thing, that the acrimonious humor of the Gout ouzing through the ligaments of the joynts, cauſeth no drawing in the limbs, becauſe, *ſay they*, the nerves themſelves are not offended, but only the membranes and membranous ligaments, which do not cauſe the motion; and that therefore, although they

are seized with great pain, they cause no convulsion; just as 'tis also found in the *Tooth-ach*, *Pleurisie*, and *Colick*.

Ans. This is an exception that concludes nothing, forasmuch as the Gouty matter provokes not the organs of Motion, but those of Sense.

CHAP. VI.

That the Gout is a general Disease of the limbs, receiving its denomination from that limb which it seizes on; together with the place in which the Gouty matter is bred.

Qu. IS the Gout a *general* Disease, (as *Galen* affirms) attacking all the joynts of the limbs of the body?

Ans. It is so general, that not one external part of any limb of the whole body is by its own nature exempt from it. The reason is, because that all parts and limbs are wrapped about

about with this ſenſible membrane, called *Perioſtium*, the head, neck, jaw-bones, breſt, back, and the teeth themſelves, foraſmuch as they are incloſed in their groves or pits.

Qu. Doth this Diſeaſe take different names, according to the limb which it infeſts?

Anſ. It doth ſo: Hence 'tis called *Podagra*, when it falls upon the feet; *Gonagra*, when upon the knees; *Chiragra*, when upon the hands; *Iſchiatica*, when upon the *hips*: And ſo, the *Tooth-ach*, when upon the teeth; the *Pleuriſie*, when upon the skin that clothes the ribs, *&c.* All which I eſteem to proceed from one and the ſame cauſe; though many will think this ſtrange.

Qu. What is the *antecedent* cauſe of the Gout?

Anſ. Whatſoever breeds theſe damps.

Qu. In what place grows this damp, being the next cauſe of the Gout?

Anſ. The learned do as little agree in this, as they do in the next cauſe

it

it ſelf; and *Fernelius* complains, that no man had thoroughly ſearched into this point, and that through the want of the knowledg thereot, the Gout had been left for incurable.

Qu. Is this peccant matter bred only in the head, excepting the skull, as *Fernelius* would have it; or without the brain, as others think; or moſt of all in the *Viſcera*, as the ſtomach, ſpleen, liver, gall, and the reſt?

Anſ. I give my voice for thoſe that affirm the laſt, *viz.* that theſe Gouty damps are moſtly generated in the inner parts, yet not excepting the head.

Qu. But can you tell, *Sir*, in what manner they are there produced?

Anſ. Doubtleſs they are, through want of heat, gathered and laid up in ſome or other of the aforementioned parts from corrupted humors, and particularly from corrupted blood.

CHAP.

CHAP. VII.

How, and through which ways, the Gouty matter comes to the Limbs.

Qu. SInce theſe morbid damps do cauſe ſuch grievous pains in the external limbs, but are bred in the inner parts; by what means and paſſages do they come to thoſe limbs?

An. By means of the Circulation of the blood through the manifeſt ways of veins and arteries.

Qu. Do not theſe damps aſcend or deſcend directly into the limbs, without paſſing the heart?

An. They muſt needs firſt paſs into the heart.

Qu. By what ways?

An. Through the veins, which, gathering out of the inner parts the generated damps, carry them, together with the not yet ſufficiently concocted blood, into the heart.

Qu. But do not theſe malign damps offend that noble part, ſeeing they

cauſe ſuch grievous pains in the limbs?

Anſ. Certainly they do; and are the cauſe of Fevers, beating of the heart, and other diſtempers; and frequently cauſe death, when the heart wants ſtrength and vigor to expel them.

CHAP. VIII.

Of the Expelling Part.

Qu. IS the heart then the only ſtrong expelling part, which drives thoſe damps into the limbs?

An. It is, as is evinced by the ſtrong motion and beating of the arteries in the Gout; whereby the heart labours to deliver it ſelf from ſuch a pernicious damp, and to diſcharge and purifie the nouriſhing blood of the ſame.

Qu. Through what ways doth the heart drive out theſe damps into the limbs?

An.

An. Through the arteries.

Qu. Whence is it, that the Gout for the moſt part manifeſts it ſelf in the extremities of the limbs of the body, as (for example) in the great Toe of the left Foot?

An. Becauſe that the heart, undertaking the expulſion, drives this offenſive matter as far as it can.

Qu. May one from the Gout judg of the vigor and debility of the heart?

An. You may probably do ſo from the ſuffering part: For, if that be far from the heart, then the heart is ſtrong; if near it, then 'tis leſs vigorous, and unable to ſend that noxious matter far away.

Qu. But when the heart through the arteries doth expel into the limbs, together with the nouriſhing blood, theſe damps; muſt thoſe limbs receive them?

An. They muſt receive them as well as the nutritive blood which accompanies it; the heart expelling them chiefly by the force of the ar-

teries, nor reſting till they be thruſt out.

Qu. But why doth not the part aggrieved expel thoſe damps, and ſend them further away?

An. Sometimes it doth ſo; namely, when the expelling force of ſuch a limb is ſtrong and vigorous; for then it ſuffers not this bad gueſt to harbour there, but forces it by the veins to retreat back to the heart; whence it not ſeldom comes to paſs, that by another expulſion from the heart it falls upon a weaker limb; as we ſee, that the pain which at firſt was felt in the hand, ſoon after is found in the foot, *&c.*

Qu. When and how comes it to paſs, that the limb is not able to drive or ſend away this peccant matter, but is conſtrained to lodge that unwelcome gueſt?

An. When the expelling vertue and the natural heat of that limb is defective, and too weak.

Qu. But, *Sir*, can you fully make it out, that theſe malign damps take their

their courſe to the limbs, only through the arteries?

An. I can, my reaſons being theſe: *Firſt*, I prove it by the beating pain, which, amongſt others, is in the Gout one of the ſure marks; for, that beating pain ſufficiently ſhews, that the Gouty matter comes out of the arteries. *Secondly*, 'tis plain from the ſwelling, diſtenſion, and quick pulſation of the arteries, as thoſe through which this matter takes its courſe. *Laſtly*, 'tis moſt evident from that remedy, which hath been uſed by the ancient famous Phyſitians, as likewiſe from our diſcharging medicine.

Qu. What remedy of the Ancients do you mean?

Anſ. That of *Arteriotomy*, or the opening of Arteries; by means whereof, they declare to have found incomparable more help and eaſe for the gouty Patient, than from the opening of veins; for a proof, that the gouty matter is protruded from the heart through the arteries.

Qu. But how doth it appear from your own Remedy ?

An. Forasmuch as the same being applied to the *Arteries*, (when they by their strong pulsation give sufficient assurance that the peccant matter is not yet quite expelled, but in part still harbours there,) fetches out that offensive stuff, and frees them therefrom ; as we shall more plainly shew in our manner of curing the *Tooth-ach* : where it will manifestly appear, that this Burning of ours is not only a discharging, but also an excellent exhausting aid, forcing these damps in the arteries and veins to evaporate.

Qu. Doth this painful matter cause no pain as long as it is included within the coats of the arteries ?

An. It causes no pain until it does violence to the *periostium*, because the tunicles of the veins and arteries are void of feeling.

Qu. When the Arteries (in those that already feel great pain) do not cease to beat strongly, what conclude you thence ?

An.

An. That the Gouty matter in part ſtill reſts in the arteries.

Qu. May this matter be totally expelled out of the arteries?

An. Not only it may; but the heart, as the ſource of the arteries, never reſts till it hath effected it.

Qu. Can this damp of it ſelf, or by too ſtrongly repercutient means, be turned back again through the arteries to the heart?

An. Some indeed are of opinion that it can; but I ſay that 'tis not poſſible: Nature, or rather the wiſe Author of it, having provided certain valves, which *towards* the heart are ſhut, and ſo hinder the return of blood and vapors thither through thoſe veſſels.

Qu. Through what veſſels then returns this damp to the heart, as it often doth?

An. Through the *veins*, the Antagoniſts (as one calls them) of the *Arteries*; for this way is open and unobſtructed, all the valves of them towards the heart being open.

Qu. How comes it to pass that this damp returns to the heart?

An. Either when the expelling virtue, and the natural heat of the part that receives the damp is great; or when strong repelling means are unwarily applied; by which latter way the Patient is exceedingly prejudiced, because thereby the pernicious damp is made to return to the heart, which with so much labour had discharged it self from it; and there it causes Fevers, Anguish, and the like distempers, and often Death it self.

CHAP. IX.

Of the Diagnosticks, or Signs of the Gout.

Qu. IS it necessary to know the proper Signs of the Gout?

An. Certainly it is; forasmuch as those only are fit to cure the Gout, who know well the proper Signs thereof.

Qu.

Qu. Hath there been no miſtake herein hitherto?

An. There hath; for men have made thoſe to be ſigns of the Gout that are none, as Inflammation, Heat, Fever, &c.

Qu. Which then, in your opinion, are the proper ſigns whereby the Gout can be beſt diſtinguiſhed from other diſtempers?

An. Vitiated motion and Pain: which ſigns are preſent from the beginning of the Gout, and as 'twere born with it, and do grow up with the ſame to its height, and abate alſo and vaniſh with it.

Qu. Are theſe the only and always concomitant ſigns, by which we may know this inward, and, for the moſt part, unſeen windy tumor?

An. They are ſo; though ſwollen veins, and ſtrong beating arteries, may alſo be put for ſigns of the ſame.

Qu. Thoſe two firſt, are they Signs only, or alſo Symptoms?

An. They are ſure ſigns, but they are alſo ſymptoms.

Qu.

Qu. Inflammation, Heat, Fever, outward ſwelling from afflux of humors, *&c.* why may not they be eſteemed to be proper ſigns here?

An. Becauſe they do not immediately follow the Diſeaſe, nor any proper effects of the Gouty matter, nor do they always appear in the Gout; and therefore are deceitful ſigns, not to be truſted to, and ſuch as have miſled ſome of the moſt ſagacious men.

Qu. Are they to be reckoned amongſt the Symptoms?

An. Not among the *proper* ſymptoms of the Gout, but only ſuch as *proceed* from ſome proper ſymptom of the ſame.

Qu. How is that *pain* conditioned, which you make to be a proper diagnoſtick or ſign of the Gout, whereby the Gout, or the inward tumor in the *perioſtium*, is made manifeſt?

An. 'Tis a pungent, diſtending and beating pain, which begins and ends with the Gout, and grows up, and declines with the ſame.

Qu.

Qu. What denotes the *pungent* pain?

An. That the *perioſtium* ſuffers.

Qu. What the *diſtending* pain?

An. That the ſenſible membrane is raiſed and ſtretched by the Gouty matter.

Qu. What the *beating* pain?

An. That the gouty matter is already impacted and wedged in.

Qu. What ſignifies the intolerable pain?

An. Both the plenty and malignity of the damps, whereby the ſenſible *perioſtium* is forcibly ſevered from the bone, and ſtands by the force of the intruded winds bent, like a ſtring upon a bent Bow.

Qu. What doth the *Pain* indicate, which not only pervades all the parts of the body, upwards and downwards, but alſo paſſes to the moſt extreme part, in ſuch a degree, that the poor Patient can reſt neither day nor night?

An. This plainly and palpably ſhews (beſides what was juſt now ſaid

in

in the next foregoing anſwer,) that the membranes of the parts have a ſtrict communication with one another, and a mutual ſympathy.

Qu. What doth the *Vitiated motion* indicate, which increaſes and decreaſes as the Diſeaſe doth?

An. Not that the organs of motion are attacked, hurt or tormented, but only that the *perioſtium* is put out of its natural poſture; which is manifeſt from hence, that as ſoon as this membrane is reſtored to its natural ſtate, you cannot perceive the leaſt defect in thoſe organs.

Qu. Why then doth the pain increaſe, and grow more violent upon touching or moving the part affected?

An. This comes not to paſs becauſe that the organs of motion, or their membranes do ſuffer; but becauſe that the membrane being already diſtended, by the touch or motion thereof it comes to ſuffer, and to ſtretch a new; whereupon new pain muſt follow.

CHAP. X.

Of the Symptoms of the Gout.

Qu. FOrasmuch as there are found many and different Symptoms in the Gout, will it not be proper to make a distinction between them, thereby to come to the true knowledg of them?

An. You will do very well to distinguish first the *Symptoms* in general from the *Disease* it self; and then to make a distinction between the Symptoms themselves.

Qu. What distinction is there to be made between the Symptoms of the Gout?

An. This; that the symptoms that arise and vanish with the Disease, are to be distinguish'd from those that are bred not from the Gout, but from the symptoms of the Gout.

Qu. Which are the Symptoms that do immediatly accompany the Gout, and are born and dye with it?

An.

An. Of theſe there are but two, already ſpoken of, *viz.* the Vitiated motion, and the Violent pain: Theſe come and go away with the Diſeaſe, following the Gout as a ſhadow doth a body.

Qu. Which of theſe two Symptoms is the chiefeſt and moſt grievous?

An. The Pain; which is not the Diſeaſe it ſelf, or the cauſe of the Gout, as hath been already ſaid; nor yet is it a ſimple Symptom, in regard it is a cauſe of other ſymptoms, eſpecially when it is violent.

Qu. What Symptoms are occaſioned, or rather cauſed thereby?

An. Inflammations, Fevers, Faintings, Sleepineſs, Loſs of ſtrength, Afflux of humors.

Qu. Is it certain, that all theſe ſix Accidents are cauſed by the raging Pain of the Gout?

An. Dr. *Paul Barbette* reckons them all amongſt the effects of the Gouty pain, when he treats of the Symptoms of *Wounds* in his *Chirurgery*,

gery, *p.* 165. of his Dutch Edition. Beſides that 'tis manifeſt, that moſt of theſe do then firſt appear when the pain grows violent, and diſappear with the diminution and ceaſing of the pain.

Qu. Whence comes it, that theſe Symptoms that are cauſed by the Gout, not only in divers Patients, but alſo in the ſame, ſhew themſelves at one time more than another, and differ ſo much from one another?

An. It comes from the greater or leſſer intenſneſs of the efficient cauſe, the Pain; which receives its degrees from the quality and quantity of the gouty matter. For the more malign and abounding the damps are, the more grievous alſo are not only the *proper* Symptoms, but alſo *theſe* Accidents of the Gout.

Qu. Doth the raging pain excite in all Gouty perſons theſe Symptoms all together, and at once?

An. Not ſo; for in bodies that have but little ſeroſity in the blood, the firſt five Symptoms do appear; but

but not at all, or very ſeldom, the ſixth and laſt, which is the afflux of humors: In others, who abound in that ſeroſity, the afflux of moiſture will be perceived firſt of all, and often without inflammation. Again, when the gouty matter lurks deep, as in the *Sciatica*, and in the Gout of the ſhoulders, you are not then to reckon upon the change of colour, and the afflux.

Qu. That raging pains do cauſe inflammations, is eaſily underſtood; but how do they produce Fevers, Faintings, Sleepineſs, and loſs of ſtrength?

An. The intolerable pain drawing to the heart, cauſeth there a Fever and Fainting; and paſſing to the brain, produces there Waking: whence muſt neceſſarily follow Loſs of ſtrength.

CHAP.

CHAP. XI.

Of the external Serous Tumor, which often manifests it self in the Gout.

Qu. IS it worth while, to treat somewhat more largely of this Tumor, than of the other Symptoms caused by the Pain?

An. 'Tis very necessary, because by this Symptom many Learned men have been so misled, as to take it for the *Gout-breeding* matter it self, or at least not to distinguish it from the *Sickness* it self: Whence, as from a fruitful soil, have sprung so many errors about the Gout, and especially about the proxime Cause thereof. Yea this is the only cause, that so many Physitians and Chirurgians are so much wedded to the Notion of *Humors*, that they dare almost take it for granted, that the Gout cannot *be* without this Swelling and Afflux of Humors; insomuch, that if they meet with any Gouty

perſon, in whom they cannot find this Swelling or change of Colour (although they find great pain,) they will rather diſcard them out of the number of the Gouty, than acknowledg, that ſometimes there are no *humors* at all accompanying the Gout.

Qu. But ſince the Affluxed humor, which breeds the external ſwelling, is neither in whole nor in part the Cauſe of the Gout, what ſhall we make of that tumor and its matter?

An. It is a Symptom, which is no inſeparable companion of the Gout; yea never begins, and ſeldom ends with that diſeaſe: Which I think I can ſo plainly make out, as that the moſt ordinary capacity ſhall underſtand it to be ſo.

Qu. Does then this ſerous Swelling not always accompany the Gout as an inſeparable Symptom?

An. No; for, beſides that ſome Gouty perſons ſeldom or never perceive this Tumor (cauſed by affluxed humors,) as I have experienced, and many Writers muſt witneſs; commonly

monly there is no affluxed Humor found in the *Sciatica*.

Qu. But does this Swelling never *begin* with the Gout?

An. 'Tis never perceived in the beginning of the Gout; for, though in many Patients this Tumor very soon follows upon the Gout; yet, if it be well obſerved, it is never of the ſame age with the Gouty tumor, which in order of time always precedes it: Yea, if care be had, its birth may ſometimes be altogether prevented, by being timely ready to evaporate this dolorifick damp by a ſpeedy application of my matchleſs diſcharging Remedy; as I have often experimented on my ſelf, and ſhall further teach in the *ſecond* part, treating of the *Cure* of the *Gout*.

Qu. But as this Symptom never begins with the diſeaſe, does it neither end always with it, as other Symptoms do?

An. No: This Symptom alone *ſurvives* the Gout; yea the cauſe whence it riſes ends not with it. For,

as for the moſt part it firſt appears when the ſickneſs is at its height, and the pain rageth ; ſo it is often ſeen a good while *after* the Gouty pain, and then by good means and ſome patience diſpelled.

Qu. It ſeems then, that the pain, which is the cauſe of this Symptom, ceaſing, the outward tumor doth not vaniſh at the ſame time?

An. No; for very often the limbs remain ſwelled as before, and it requires ſome days, and ſome trouble, before this Swelling can be removed; yea, if you do not take care, it not only lames the Patient, but alſo deforms him by Nodes and Schirres, whereby the Motion of the limbs is for ever deſtroyed.

Qu. What then is to be done, to judg aright of this Symptom?

An. You muſt hold it for a certain truth, that the Humors which in the Gout breed the Swelling, are not the peccant or Gout-breeding matter.

Qu. To make me the better comprehend this, pray give me a clear deſcription

ſcription of this Swelling, which hath been the occaſion of ſo many Errors, and hath deceived ſo many Learned men?

An. It is a Preternatural ſwelling in the Fleſhy parts, conſiſting of a ſerous humor pervaded with ſaltiſhneſs, by the ſharp pain penetrated into the Limbs, and 'tis ſoft, pale, and cold.

Qu. But how may we beſt diſtinguiſh this Swelling from the Gout?

An. If it be view'd at the time when its Efficient cauſe is gone; for then it may be ſeen in its true eſſence and qualities, and looks no otherwiſe than a *Serous* humor is wont to do.

Qu. I ſee, you make two ſorts of Swellings in the Gout?

An. I do ſo; the one is *Windy*, which is the Gout it ſelf; the other *Serous*, which is a Symptom: And they differ exceedingly from one another.

Qu. Wherein conſiſts that difference?

An. Chiefly in theſe particulars: 1. In reſpect of the *Name*, which they

receive from their ſeveral Cauſes; for the Gouty tumor coming from Winds, takes the name of *Windy* tumor; the other, coming from a ſerous humor, is called the *Serous* tumor. 2. In reſpect of the *Part* or *Place affected*; for, whereas the Windy tumor diſtends the Membranes of the bones, the Serous fill the Carneous parts, as water a ſpunge, and render the Fleſh very ſpungy. 3. In regard of the *Signs*; for, whereas the *Inward* ſwelling excites grievous and intolerable pain, the *Serous* none or little. 4. The Internal ſwelling is a proper diſeaſe; the other is raiſed by the pain, and is a Symptom bred by Conſent of parts.

Qu. But ſince that the *Serous* tumor in the Gout is not produced by any External cauſe, but by an Internal, what is this Cauſe?

An. The violent pain, as hath been often ſaid, which is here the cauſe of the Afflux of humors, it being known by Artiſts, that Pain draws humors after it; which therefore is by them aſſigned to be one of the principal

cauſes

cauſes of the Afflux of humors.

Qu. But are theſe humors, of which this kind of Swelling conſiſts, drawn into the ſuffering parts by the Pain alone?

An. Artiſts are wont to add, that ſympathizing Nature, as a kind Mother, ſuccours the ſuffering part by ſending moiſture to it; and accordingly this Swelling ſhould be generated by Sympathy or Conſent of the parts.

Qu. What benefit or eaſe doth the part affected receive from ſympathiſing nature by her ſending thoſe humors thither?

An. That the raging pain is thereby mitigated, and rendred more tolerable.

Qu. In what manner is that done, or how doth the conveyed humor aſſwage the enraged pain?

An. Though this be difficult to explain; yet I cannot agree to the common opinion, importing, that the Pain-breeding matter by means of the conveyed humors is driven outward,

and diſperſed thorough the neighbouring fleſh, and ſo the ſuffering member for a great part freed of the pain-cauſing matter: For, the conveyed humors can by no means approach or come to the dolorifick matter, much leſs fetch it out of its deep ſeat, and diſlodge it, becauſe 'tis ſo faſt impacted and included under ſo firm and cloſe a Bone-membrane.

Qu. What is then, in your opinion, the reaſon why the ſharp pain is often diminiſhed upon the afflux of moiſture, not only in the Gout, but alſo in the Tooth-ach? *&c.*

An. Methinks 'tis probable, that 'tis done after this manner: The muſculous fleſhy parts being by the conveyed humors rendred ſofter, plumper, and more ſpongious, and conſequently gentler, do not, in the firſt place, preſs againſt, or rather reſiſt ſo much the ſenſible and diſtended *perioſtium*, as before, when the carneous parts had but their own native and proper moiſture. Secondly, the *perioſtium* being by the conveyed moiſture from

with-

without made gentler, may with leſs pain be ſtretch'd; and it may alſo come to paſs, that by that little warmth, which this ſerous matter hath in it at firſt, it being now come near the *perioſtium* doth ſomewhat attenuate the included groſs damp, and ſo the better diſpoſe it to evaporate.

Qu. But doth the affluxed humor occaſion no miſchief?

An. Very much, and ſometimes more than the Gout it ſelf; for without care it cauſeth Diſlocation of the ſuffering members, and the Nodes.

CHAP. XII.

Of the Diſlocation.

Qu. HOw is it poſſible, that the Gout-breeding matter ſhould cauſe a Diſlocation?

An. By the plentious ſtock of humors conveyed and drawn in.

Qu. But how; doth this abundant moiſture, falling into the cavity of the joynts,

joynts, forcibly thruſt the bones out of their cavity?

An. Not ſo; but 'tis done in manner following: Pain and Nature cooperating, the one by drawing in, the other by conveying, bring ſuch a quantity of humors to the ſuffering part (for example, the *Hipp*,) that thereby, in time, the ſtrong ligaments, which tye the bones together, are ſo ouzed thorow, that being debilitated they ſtretch and grow ſo lax, that the bone falls out of its cavity, and ſo cauſeth diſlocation: Of which we have many ſad Examples.

Qu. Doth not this miſchief fall often out in other Caſes?

An. It may happen in all the members of the body; and then eſpecially, when an unskilful or imprudent Maſter by the uſe of wrong means occaſioneth yet a greater afflux of humors than hath been already drawn in by the pain, and furniſh'd by nature: Of which, *Pareus* records a memorable Example in the Diſlocation of the knees, cauſed by a *Pari-*

ſian

sian Master, called *Greaulm*, fol. 256.

Qu. May this Dislocation be prevented by Art?

An. Very well; as shall be shewn in that part of our Book, which is to treat of the Cure of the Gout, and its Symptoms.

CHAP. XIII.

Of the Nodes.

Qu. IS there yet more danger to be apprehended from this Symptom, or its matter?

An. There is; for if you take not great care, it will change into an incurable *Scirrhus* or hard tumor, which in the Gout are called *Nodes*, according to that of *Ovid*;

---Tollere nodosam nescit medicina pedagram.

Qu.

Qu. When comes this ſwelling to change to ſuch an hardneſs?

An. To borrow the words of *Beverovicius*; when the thin humor is inſenſibly exhaled, and the ſediment reſts behind, then will that turn into hard knobs, which burſting of themſelves, or being opened, render a chalky or ſuch like matter, whereby our limbs are not only deprived of motion, but alſo diſpoſed to crookedneſs.

Qu. How many ways are theſe ſtony ſwellings generated?

An. Two; either of themſelves, or by the unskilfulneſs of the pretended Artiſt.

Qu. When of themſelves?

An. The Evaporation of the ſubtiler or thinner parts of theſe humors may be cauſed by the natural and innate warmth of the ſuffering part, aſſiſted by the adjacent parts, as alſo by the preternatural heat of the inflammation of the ſame, without any other external cauſe: Whereupon the groſs, thick, ſaltiſh, and earthy parts,

as

as the ſediment and relicks remaining in the limb, are coagulated and concreted.

Qu. I underſtand you very well; but, I pray, tell me alſo, how may this come to paſs by the Unskilfulneſs of Practitioners?

An. When they apply too ſtrongly repelling, or drying, or too much cooling remedies, which drive the thinner parts inward, or diſpel them, and ſo harden and render incurable the thicker ſtuff; whereas they ſhould uſe moderately warm mollifying remedies, thereby to expel and conſume the whole matter.

Qu. Do theſe *Nodes*, when they are cauſed without the application of perverſe remedies, grow on leiſurely?

An. They do ſo, when they are bred of themſelves: For, the foundation of this chalky matter being once laid, 'tis raiſed and encreaſed more and more upon every new afflux, and from time to time ſcaled over, until it comes to that bigneſs,

that

that it only hinders the motion of the limb, and renders it crooked, but can alſo ſtay or have room no longer under the skin, but making it firſt protuberant, burſts it at length in pieces.

Qu. Surely an ignorant Practitioner can bring this to paſs much ſooner?

An. So he can, and to ſuch a degree, that the poor Patient in the very firſt fit of the Gout is for ever deprived of the motion of the ſuffering limb; of which we have in *Banda* an Example of a Lieutenant of ours, now lying here in Garriſon, called *Jan van Haerlem.*

Qu. But may not this growing of *Tophes* or *Nodes* be prevented and hindred?

An. Very well; as ſhall be taught in the Cure of the Symptoms of the Gout.

Qu. Will you proceed now to the ſecond principal you intended, *viz.* the *Cure* of the *Gout*?

An. I will, after you have heard what

what I had to say of the Nature and Cauſe of the Gout, its Seat and Part affected, its Diagnoſticks, Symptoms, and the neceſſity of diſtinguiſhing theſe latter not only from the diſeaſe it ſelf, but alſo from one another: All which have made way to judg the better of a fit Remedy to cure the ſame; ſeeing we cannot hope for Cure, before the Malady be throughly underſtood.

THE SECOND PART:

Of the CURE of the GOUT.

CHAP. I.

Treating of the Cure of the Gout, *in general.*

Qu. HAve there not been at all times men that have pretended to the skill of Curing the Gout?

Anſ. Yes indeed; but Experience hath put them to ſhame: For whereas they have promiſed cheap and ſure remedies againſt this painful diſeaſe, their promiſe hath notoriouſly failed, and their Patients have been

at laſt abandoned remedileſs. See hereof, amongſt others, *Fabritius Hildanus* his *ſecond Part*, *p.* 174. where he ſpeaks of one, whom he calls a Monſter, that highly bragged, he could conquer that great Enemy of Mankind, the *Arthritis* or *Gout*, but was confuted by very ſad Experience.

Qu. Why doth he call him a Monſter?

Anſ. Becauſe of that monſtrous and miſchievous means by him uſed, whereby he *killed* his Gouty Patients. See in the ſame *Hildanus* his *ſecond part*, *p.* 87. that unhappy preparation of *Quickſilver* for the Gout.

Qu. But have none of the beſt Phyſitians of *Europe* in ſo many Ages found any ſure Remedy againſt this Diſeaſe?

Anſ. None that I know of; they rather call the Gout *Ludibrium Medicorum*, and the *Diſeaſe of Rich men*; though it ſeizes alſo on the Poor, who, if they could be helped, would ſoon loſe that name. Hence

'tis

'tis become a Proverbial saying, *viz.* that he who undertakes to perform something extraordinary, is like him that pretends to Cure the Gout: Which pretenders are usually sent to the Courts of Kings and Princes, to practise their skill on them, who will not fail to make such men rich, as shall perform such undertakings.

Qu. What's the matter then, that the true Remedy hath not been found hitherto? is the fault in the Physitians, or in the Gouty Patients?

Ans. In both, but most in the former, as not knowing the true nature of this Disease, notwithstanding all their Disputes and Discourses about it.

Qu. What do you think of *Cardanus* his saying in the praise of the Gout, *viz. That whosoever will stop the source of the* Gout, *stops withall the source of life:* Doth not this imply, that the Gout is incurable?

Ans. He will say, that the Root of the Gout cannot be totally pulled out, though you may strip off the

Leaves, that is, remove the outward Accidents thereof.

CHAP. II.

That the Gout *is curable by Burning with* Moxa.

Q. BUT pray, let me know your opinion in this matter: Is the Gout an incurable Evil, and *Cardanus* his saying true?

A. For the comfort of all the Gouty, I here openly and joyfully declare, that 'tis Curable:

Q. But is not this a presumptuous Arrogance?

A. No; for the good God, in compassion to mankind, hath been pleased not only to bring me to the true knowledg of the nature and condition of this Disease, but also to direct me to a *specifick* and proper remedy thereof, which removes this sore Evil, it being now, through the divine goodness, in our power to quell and tame this

this Gyant, without making our ſelves guilty of any vanity.

Q. What means is this, I pray?

A. 'Tis the harmleſs Burning with *Moxa*, which being three or four or more times repeated, according to the condition of the place which the Gout hath ſeized on, pulls the Enemy out of his faſtneſſes. Mark it, the raging Gout in the height of its rage, is firſt ſtopp'd in its carrier, and ſoon after forced to pack away.

Q. Is this poſſible?

A. It is; for I have ſuccesfully experienced it on my ſelf, and many others.

CHAP. III.

How, and for what this Remedy is uſed.

Q. BUT to ſpeak with order of the Cure of the Gout, what is above all to be conſidered in this Diſeaſe?

A. The ſuffering part and labouring nature is to be ſuccour'd without delay, and the part affected to be delivered of the incloſed damp; the Cure principally conſiſting herein, *viz.* in giving an out-let to the Gout-breeding or peccant matter, and even in forcing it to evaporate.

Q. Which then is the remedy, that performs ſo great an effect? Is it not known in *Europe*? Where hath it been found out?

A. 'Tis *Moxa*, beſt known amongſt thoſe of *China* and *Japan*; ſo celebrated, valued, aud commended there, that no other remedies are to be compared therewith upon the account of its excellent performances; conſidering that there are few pains in the body, for which they do not uſe it with great benefit.

CHAP.

CHAP. IV.

What Moxa *is, and where to be had.*

Q. BUT what is this *Moxa*?

Anſ. 'Tis a very ſoft and woolly ſubſtance, made by a very skilful preparation out of a certain dried Herb.

Q. What name hath that Herb, out of which this woolly matter is prepared? Is it not known amongſt us?

A. The name is unknown to me; but I am well aſſured, that 'tis one of the beſt Herbs under the Sun, and may very juſtly bear the name of *Mater Herbarum*.

Q. Is there requiſite a particular skill to prepare it?

A. Yes verily; and there is none of all the Droguiſts of *Europe* that have that skill.

Q. Is the preparation of it much valued by the *Chineſes* and *Japaneſes*?

A. This Art is by thoſe Nations ſo highly valued, that they will not for any mony communicate it to other Nations, but do keep it for a great ſecret.

Q. Do they in *China* and *Japan* publickly vend it?

A. They drive a good trade with it, and carry it in whole bales through thoſe vaſt Empires for ſale.

Q. Which of thoſe Nations hath the reputation to prepare it beſt?

A. The *Chineſes* do herein far excel the *Japoneſes*; as they alſo do in preparing and conſerving all other ſorts of Medicines.

Q. Is this prepared Herb in great eſteem with thoſe people?

A. In ſo great an one, that they are ſeldom found to be without it.

Q. For what uſe do they employ this woolly ſubſtance?

A. For an actual Cauſtick, and an efficacious diſcharging remedy.

Q. Againſt what Diſeaſes, and in what places of the Body?

A. Againſt all indiſpoſitions ariſing from cold Damps and Humors, and in all places of the Body, none (that I know) but the eyes excepted.

Q. Do they find good from this Cauſtick.

A. Exceeding great, and that with great ſafety; by vertue thereof freeing the Body from all lurking winds and cold humors.

CHAP. V.

Directing how this Remedy is to be uſed.

Q. IN what manner do they uſe this matter for a Cauſtick, and in what quantity?

A. They make between their fingers a little pellet of this woolly ſubſtance, which is ſcarce of the bigneſs of a ſmall white pea, at one end ſomewhat ſharp, and at the other end flat; and this they put with the flat end on the place where the Burning is to be made,

made, ſetting fire to the upper ſharp end by ſome ſmall Aromatick ſticks, expreſly prepared for it, which yield a very grateful ſcent.

Q. Doth this woolly matter catch fire quickly?

A. When 'tis competently dry, it catches fire ſooner than any tinder: whence the *Chineſes* employ it alſo in their Tinder-boxes.

Q. Doth this pellet, when kindled, turn all to aſhes?

A. Never wholly, but there always remains a little bottom that is not incinerated.

Q. What may be the cauſe that 'tis not wholly turn'd to aſhes?

A. The moiſture which by this burning matter is drawn out of the ſuffering place; of which moiſture indeed the greateſt part flies away in fume, but yet ſome of it draws into the burning pellet, and ſo moiſtens it that it cannot all be converted into aſhes.

Q. Can the humors under the skin be ſeen with the naked eye to run towards the burning pellet? *A.*

A. Very well, it being done with more ſpeed than men are wont to run to an houſe that is on fire.

Q. Doth this Burning raiſe no bliſters in the skin?

A. None at all; it only cauſes a little grey ſpeck, though the pellet be divers times ſucceſſively kindled upon the ſame place.

Q. What reaſon is there for it, that the fire here raiſeth no bliſters?

A. None other, but that the pellet burns not quite thorough to the skin.

Q. Doth not this Burning cauſe intolerable pain?

A. The pain is very tolerable, becauſe the matter is woolly and ſoft, not cloſe nor thick; and the pellet is ſmall, and burns not unto the very skin.

Q. How long laſts the Burning of one pellet?

A. About the time of telling *fifty*.

Q. How often is the Burning repeated upon one place?

A. Ordinarily thrice upon weak

and

and tender limbs; but upon other places, if need be, ſo often till the pain be removed, although you ſhould (for example in the *Sciatica*) on one and the ſame place kindle 25, yea 50 pellets; of which you need not fear the leaſt inconvenience, but may expect the better diſcharge.

Q. But doth not this Burning occaſion great after-pain?

A. None at all; but as the fire is out, you may handle the place burnt without cauſing any pain; and, which is more, you may cruſh and preſs it as hard as you pleaſe.

Q. Doth this Burning take away the pain that is in the place or part, or only mitigate it?

A. It doth both, to admiration.

CHAP.

CHAP. VI.

What is to be done after the Burning upon the places where it hath been made?

Q. SO then, there is nothing to be done after the Burning upon the part burnt to eaſe the after-pain?

A. I told you juſt now, there is no ſuch thing as after-pain: But yet you muſt not leave weak nature to her ſelf alone, but you ought to aid her, and to uſe means to ſeparate the little *Eſcar* as ſoon as is poſſible.

Q. What is to be done herein?

A. Lay a little beaten Leek upon the ſaid *Eſcar*, and over that, one of the outermoſt coats of the ſame Leek, a little moiſtned in the mouth; the which, like a plaiſter, keeps the beaten Leek faſt upon the *Eſcar*. This being taken off together, ſome 24 hours after, more or leſs, you'l ſee the little Eſcar diſpoſed to ſeparation, appearing to have round about it a circle of

of clear skin, which ſometimes alſo riſes to a wound or bliſter, which may with ſciſſers be opened to give it vent.

Q. Is not this little *Eſcar* to be treated with inciſion, and to be taken away with little pincers or lancets, that ſo the ill which may lurk there may evaporate? Or is it better to leave it for nature further to open the *Eſcar*, and to throw it off?

A. Beware to uſe any ſevere means (from ill-grounded conſiderations) or any force; for great pain may thereby be occaſioned: And therefore uſe only warm Plantin-leaves to make the *Eſcars* fall off, patiently ſtaying till they fall off by that means, and the part heal up; the which is effected by provident Nature her ſelf, if it be good for the part affected.

Q. But when the Eſcar ſeems to be already looſe, and even to hang doubled in the little wound, is it not then to be taken away?

A. No.

Q. If the Eſcar is ſever'd, and taken

taken away by Nature her ſelf, and the *pus* or matter looks like lard, is not *this* ro be removed one way or another?

A. You are not ſo much as to touch it, bur leave it to Nature to diſpoſe thereof.

Q. Muſt you not do your beſt with the greateſt ſpeed to heal up the burnt places?

A. No; but rather you are to keep them open as long as you can, yet without changing them into Iſſues by putting peas or pellets into them.

Q. How is that to be done?

A. By laying upon them warm Plantin-leaves, with the *rough* ſide to the skin. I ſay, they muſt be laid on warm, not cold: And this is to be done not by holding the leaves in warm water, but by laying them on glowing wood-coals; where they muſt lie until you ſee them begin to fall-in; and then they are to be taken off and rolled ſtiff together betwixt the palms of the hands, and then to

be

be unrolled and diſplaid again, being yet warm and moiſt, and ſo laid on the Eſcar: Continuing this until it be time to heal up the wound; when the leaf, being prepar'd again after the former manner, is to be laid on with the *ſmooth* ſide to the skin; by which means it will heal up without leaving a mark upon the part, and much better than if you had employed the beſt plaiſters.

Q. Why muſt theſe Leaf-plaiſters lie a gteat while upon the part with the *rough* ſide, and at laſt only with the *ſmooth* ſide?

A. Becauſe the rough ſide draws out, and the ſmooth ſide heals?

Q. Is there nothing elſe to be obſerved touching theſe vegetable plaiſters?

A. They are to be kept from falling off by ſome compreſs of linnen rags; and to be refreſhed or renewed twice in 24 hours.

Q. But in caſe the burnt places could not well endure the uſe of linnen compreſs, how then may theſe

Leaf-

Leaf-plaiſters be ſecured from falling off?

A. You may lay over them a *Diapalma* or *Baſilicum*-plaiſter, only to keep the Leaf upon the Eſcar.

Q. But if Plantin-leaves be not to be had, may not other leaves ſerve?

A. In that caſe you may uſe red Cabbage or Colts-foot-leaves; and, if theſe cannot be had, employ the ſaid *Diapalma* or *Baſilicum*-plaiſters: Which may chiefly ſtand you in good ſtead, when you are travelling by water or land.

CHAP. VII.

Of the admirable Effects of this Cauſtick.

Q. MAY a man reſt in this application, and expect the deſired cure?

A. You may, by God's bleſſing; and the Phyſitian may look for honour, conſidering that in ſo doing he

cureth ſurely, without inconvenience, and even with pleaſure.

Q. Then, it ſeems, there is no danger in the right uſe of this remedy?

A. None at all; yea it is ſuch an one, than which there will hardly be deviſed a better, and of which you will really ſee a wonderful effect for the good of the Patient.

Q. Will it ſuccour nature with moſt ſpeed, and free her of the evil that encumbers and torments her?

A. It will; whereas *Hippocrates l.* 6. *Aph.* 49. ſaith, that *the Gout requires* 40 *days to cure it*; which *Galen* ſeconds, with the adding this condition, viz. *if the Phyſitian underſtand his work, and the Patient do his part in obſerving carefully what is preſcribed.* But this our *Moxa*, by means of the Burning deſcribed, draws this Wolf with ſpeed out of his den, and delivers the Patient inſtantly from his pains and anguiſh.

Q. But is this way of curing ſure?

A. So ſure that it fails not, but is always

always beneficial; and the succeſs of it is ſo manifeſt, that it cannot be doubted.

Q. But you did add, that it would cure with pleaſure; which I underſtand not, ſince you have above acknowledged, that this Burning is not without ſome pain.

A. I mean thus, that the Cure is pleaſant, in regard that upon a little ſharp pain, which laſts but a ſhort time, there follows a great pleaſure and joy; the fruits of this ſhort pain being great and every way delightful, foraſmuch as the poor Patient, diſcharged from the intolerable pain of the Gout, inſtead of his doleful lamentations and outcries hath now cauſe to rejoyce, and to break out into thanks.

Q. But is this all, which the Burning with *Moxa* produceth?

A. No; for the ſame, being timely uſed, hinders the afflux of humors, though not always totally, yet at leaſt in great part.

Q. What benefit ariſeth from thence?

A. Thereby is prevented all the miſchief, which otherwiſe may be occaſioned by the afflux of humors; ſuch as is Diſlocation and *Nodes*: Whereas 'tis certain, that thoſe who uſe this way of Burning duly and maturely, ſhall never have cauſe to complain of thoſe grievous effects.

Q. If all this be true, this remedy may be extolled to the sky?

A. Not only that; but it enables the Patient to be upon his legs, and to follow his vocation, if it be not too toilſome; and even to travel without any conſiderable trouble: By the ſame alſo he is exempt from all other tedious and coſtly ſtuff, ſalves, ointments, plaiſters, &c.

CHAP.

CHAP. VIII.

Shewing, that this Burning with Moxa *goes beyond all other Remedies of* Europe *hitherto used against the Gout.*

Q. BUT when the Physitians of *Europe* and other parts from hence have better understood the nature of the Gout, will they not be able to find out a better Remedy against it?

A. 'Tis probable, that upon the acquisition of the true knowledg of this disease, they will not deviate so far as before from the way of curing it, and that in all probability they will eschew many errors and mistakes; but they will never find out any better remedy than this Burning with *Moxa*, it being the best, because the speediest, cleanliest and safest, yea the most genuine, most secure, and most accommodate means, that can be excogitated by men.

Q. May not the encloſed wind, which you ſay cauſeth all the trouble, be drawn out by Sudorificks, Cupping-glaſſes, Iſſues, Leeches, or common Cauſticks?

A. By *Sudorificks* poſſibly there might be effected the greateſt eaſe, but the evil would not be fully removed, ſeeing that thereby only the ſubtileſt of the gouty damps would be exhaled. And for *Cupping-glaſſes*, *Iſſues*, *Leeches*, and *Cauſticks*, none of them is able to fetch out this evil from its deep-lurking hole, which is under the cloſe and firm membrane which inveſts the bones.

Q. Is it not adviſable to employ *Anodines*?

A. By no means, becauſe the pain is thereby not removed, but only palliated and dulled; but is afterwards raiſed up into greater rage.

Q. Is not *Letting of Blood* beneficial, as many would maintain?

A. Letting of blood is better omitted, for theſe reaſons: *Firſt*, becauſe, according to the opinion of the beſt,

'tis

'tis not adviſable, when the pain is raging, to open a vein. *Secondly*, 'tis not the Blood that's peccant or faulty, but the ill-conditioned Damps, which indeed *run together* with the blood and ſpirits in the veſſels, but do never ſo *mix with* the blood, as to make one body, but may eaſily be ſever'd: Whereas 'tis otherwiſe with the Blood and Spirits, they two making up one body; as the heat and water conſtitute hot water, or as wine and the ſpirits thereof make one body of wine. *Thirdly*, by Blood-letting the noxious Damps are drawn inwards to the Heart, and there occaſion much miſchief, and the benefit you look for from it will not countervail the harm. *Fourthly*, the forces of the Patient are thereby diminiſhed, and Nature is enervated in her conflict with the diſeaſe; whereas a good Artiſt ought always to befriend Nature by ſtrengthning her againſt her enemy; and a wiſe Phyſitian will not be forward to ſhed blood, but preſerve it as the treaſure of life: And as a Sea-

man in a tempeſt will not throw his Bread over board, but rather ſuch commodities as he can be without; ſo a good Phyſitian will keep the blood of his Patient, and drive out ill Damps.

Q. What do you think of *ſalves, oils*, or other *unctuous* medicaments in this caſe?

A. They cloſe the pores, and obſtruct evaporation.

Q. What opinion have you of *hot Pickle, humane Urine, warm Cow-dung*, &c.

A. They are means which are apt to mitigate, yea ſometimes to remove the pain; but not always, or very ſlowly, nor radically.

Q. Would not an *Hot iron* be convenient to make this damp exhale, as was practiſed in the *Sciatica* upon *Jacobus Vincus*, Ambaſſador of the Prince of *Lansbergen*; witneſs Dr. *Nicolaus Tulpius*, Burgemaſter of *Amſterdam*, in his *Obſervations*, *ch.* 26. *p.* 228; by which means that Gentleman was freed from his trouble?

A.

A. 'Tis too fierce, and withal too dangerous a remedy; practicable indeed, (notwithstanding the contrary judgment of *Fabrit. Hildanus* in his *6th part, p.* 501;) but 'tis better to use our gentle way of Burning, which, by far, causes no such pain, and is more beneficial without putting nature so hard to it. To confirm this, I shall now only add, what *Herls* saith in his *Examen of Chirurgery*, p. 364. viz. *The burning with a red-hot Iron is too violent a way for Chirurgions, and too painful for Patients, and can seldom be used without hurting the flesh and muscles.* And doubtless all Physitians and Chirurgions will be of the same mind, as soon as this way of Burning with *Moxa* shall come to their knowledg; my opinion being, that they will never make use more of an *hot Iron* but in such cases, wherein the said Burning is not powerful enough, as, for example, in the Rottenness of bones, and the like.

Q. What think you of *Spanish Flies*,

Flies, now of ſo frequent uſe; of which *Jobus van Mekeren* writes in his Obſervations, that he hath uſed them with much benefit againſt the Gout, following the adviſe of Dr. *Vopiſcus Fortunatus Plempius*?

A. I eſteem, that all intelligent Phyſitians and Chirurgions will much rather make uſe of our *Moxa* for the good of their Patients, they knowing ſufficiently the venemouſneſs of thoſe *Spaniſh Flies*, and how hurtful they are to the Bladder and other *viſcera*; and having uſed them long enough of neceſſity, becauſe they knew no better means. And 'tis remarkable what *Aquapendente* warns of the qualities of Spaniſh Flies in his *Art of Chirurgery*, ch. 3. p. 246. concluding with theſe words, That '*tis madneſs to uſe this deadly remedy.*

Q. Is the Burning with *Moxa* leſs painful than that with an Iron?

A. Incomparably leſs; nor is it ſo Dangerous, according to the golden rule of *Hippocrates*, *lib.* 2. *Aph.* 12. That to heat much, and ſuddenly, is dan-

dangerous; but to do it by little and little, and ſlowly, is without danger. And this is it, what the expert Phyſitian *Guilandin* confeſſeth in *Proſper Alpinus de Medic. Ægyptiorum*, ch. 12. in that remarkable practice of the Burning in *Cairo*, and thereabout: Which *Chapter* highly deſerves to be conſidered.

Q. But, *Sir*, do you not apprehend, that the *Ægyptian* manner of Burning will go beyond that with your *Moxa*?

A. Not at all, being well aſſured, that the *Ægyptians* will be very glad to exchange their Cotton and Straminеous linnen with our *Moxa*, as ſoon as they ſhall know the admirable vertue and effect thereof. Nor is the Burning with *Moxa* by far ſo painful, as all the world will judg, when they ſhall ſee and compare both.

Q. Then, I pray, Sir, be pleaſed to repeat in ſhort, what remedy it muſt be, that ſhall free a man from this diſeaſe?

A. The genuine Cure of this Evil, which attacks ſuddenly, and will not bear

bear delay without great injury to the Patient, consists in the removal of the Cause, and requires a remedy, having these following proprieties. *First*, it must powerfully open not only the Pores of the Skin, but those also of the Membranes of Bones. *Secondly*, it must attenuate the cold thick damps, and resist their malignity. *Thirdly*, it must strengthen the innate heat, and the expulsive force of the part affected, thereby the better to master and remove the Evil. Now the Burning with *Moxa* performs all this: It strongly draws out from the deep, and resists all malignity; it attenuates the cold and crasse vapors lurking under the membranes, consuming or extracting them, and so disburthening nature of her enemy; lastly, it so corroborates the weak suffering part, that it will not so easily receive and lodge again Damps of that nature.

CHAP.

CHAP. IX.

Shewing, that this Burning is very tolerable.

Qu. BUT do you think, you can eaſily induce your Patients to undergo this Burning?

A. Certainly being well inſtructed they will quickly ſubmit to it; though that kind of Burning which hitherto hath been uſed in *Europe*, hath made men very averſe from that way.

Q. How may they be beſt perſwaded to it?

A. I would rather have them perſwaded by other prudent and underſtanding perſons, than by the Phyſitian himſelf. For as to him, it will be more adviſable, he ſhould ſeem himſelf cool in this buſineſs, and ſtay to be intreated.

Q. But in caſe they will not be induced to it out of that perverſe apprehenſion, what then?

A. It

A. If they be ſo delicate as not to ſubmit to ſo ſlight a pain, they deſerve not to be cured, and ſo muſt keep their Diſeaſe: But, I preſumé, it will be with you as 'twas at firſt with me, who having from an idle fear refuſed this Burning, was afterward conſtrained by the grievous and raging pain to *deſire* the uſe thereof. And ſince that Gouty perſons muſt day and night combat againſt the intolerable pain of the Gout, certainly they will not eaſily be afraid of this innocent way of Burning. I have ſeen weak and timorous women, and young maids, which made nothing of it, in reſpect of the pain they had indured in their teeth and head: Not now to ſpeak of Children, who without much cry and tears have endured this Burning, to be cured of that kind of Dropſie called the *Tympanites*, and of other infirmities, and particularly of *Convulſions*.

Q. But many Doctors and Chirurgions are like to condemn this remedy as new and unknown, and ſo render

der it ſuſpected among their Patients?

A. The Effect will ſoon ſilence you, and convince you of envy and ignorance.

Q. But may not this Diſeaſe be cured by gentler remedies?

A. No: You may indeed mitigate the pain by gentler means, but not remove the cauſe, nor root the Evil out of the part affected; which may beſt be done by this our Burning.

CHAP. X.

Of the Qualification required in the perſon that is to perform this Burning.

Q. IS every one fit to perform this Burning?

A. No certainly; but it muſt be one that hath a perfect knowledg of what is requiſite to it, both before and after, and that is experienced in it; becauſe conſiderable miſtakes may be committed therein.

Q. What

Q. What are the particulars, of which this Artiſt muſt be well inſtructed?

A. Firſt, of the Diſeaſe, to the cure of which this Burning is to be uſed. *Secondly*, of the Remedy or *Moxa*, and its vertue, as alſo of the Herb, and the way of preparing it. *Thirdly*, he muſt know in what manner this Burning is to be made, and what is to be done both before, in, and after the ſame.

Q. What elſe is required thereto?

A. The Practitioner muſt be a perſon of a good ſight, not unwieldy of body, having ſteady and dry, no trembling nor ſweaty hands; for elſe he will not be able to give to the pellets their due form or ſhape, to put them faſt upon the right place, and to make them catch fire: All which is to be done with a particular dexterity and expedition, that ſo the patient may not be held any time in fear.

Q. Pray, will you teach me, how the good *Moxa* is to be diſtinguiſh't from that which is naught? *A.*

A. By your ſight, ſmell, and touch.

Q. How by the ſight?

A. That which is good hath a fine gray colour?

Q. How by the ſmell?

A. It hath a grateful ſcent?

Q. How by the touch?

A. It muſt be ſoft like fine wool; if it be hard or ſtubborn, 'tis then unfit for this Burning. And if it have this laſt quality relating to the touch, though the colour and ſcent were ſomewhat decayed, it would not be unfit for this purpoſe.

CHAP. XI.

Of the little Aromatick ſticks, and their Uſe.

Q. BUT where is this *Moxa* to be had?

A. It muſt by the Commiſſioners of the *East-India Company* be ſent for out of *China*: Which will be very well

well worth the while, ſince it will prove a gainful commodity in *Europe*, and be no burthen to ſhips.

Q. What uſe is there of thoſe Aromatick ſticks you have mentioned?

A. They are neceſſary to kindle the *Moxa* with; and theſe muſt likewiſe be had every year out of *China* or *Japan*: They alſo by their pleaſing ſcent when kindled, keep the Patient and Byſtanders, and the Operator, from the ungrateful and offenſive ſmell, which the gouty damps emit, when by the burning *Moxa* they are forced to evaporate; eſpecially if it be conſidered, what ill the ſmell of ſuch ſtinking vapors may cauſe in our Bodies.

Q. Are theſe ſticks prepared by Art?

A. They are ſo, and that of ſeveral ſorts of well-ſcented wood, of which *Santal* is the chiefeſt. And they muſt be very tenderly handled, being very fragile.

Q. For what uſe do the *Chineſes* and *Japoneſes* employ theſe ſticks?

A. For

A. For burning; but moſt for perfuming before their Idols.

Q. May they be kept good for a long time?

A. For ſome years, if they be kept ſhut up in a dry box.

Q. May they not be had at *Batavia* from *China*, together with the *Moxa*?

A. They may; but in caſe a great quantity were required to ſerve all *Europe*, it muſt be ſent for from *China* or *Japan*.

CHAP. XII.

Of the Place where the Burning is to be made.

Q. IN what place is this Burning to be made?

A. In all places where the Gout-breeding matter is ſeated, and cauſeth great pain. And here the rule of *Hippocrates* may be applied: *Burn where pain is.* Wherefore the Phyſitian

ſitian or Chirurgian muſt needs exactly know the very ſeat of the gouty pain, without which the operation is for the moſt part fruitleſs. And if the application be made but an inch wide from the very part that is in pain, it would not have the deſired effect.

Q. Since it is of that importance, to know well the true ſeat of the pain; how may it beſt be found?

A. By the Eye and Touch.

Q. How by the Eye?

A. The Maſter ought to have Eagles eyes, and then by looking attentively he will ſoon ſpy the place, eſpecially if the pain be very great and violent, and the gouty limb by the affluxed humor not much ſwelled: For then the Inflammation directs manifeſtly to the very ſeat of the pain, and ſhews the hole of this raging wolf. And in this caſe one may eaſily ſee the genuine Gout-or Wind-tumor by taking notice of a little diſtenſion and ſtanding out of the skin, appearing like a ſmall puſtule; on the ex-

tant

tant head of which, if the burning be applied, the Patient will be freed of all pain, ſo as that the Byſtanders will admire, and all Gainſayers be convinced of the vertue and power of this remedy.

Q. But in caſe the Seat of the Gout ſhould not be viſible, how is it then to be found out?

A. Conſidering that this moſtly happens in perſons that are the firſt time attacked by the Gout, and often alſo in thoſe that are ſubject to a great afflux of humors from the Gout; it will be incumbent on the Maſter to be very cautious in finding out the true ſeat of the pain, that ſo he may not put the Patient to unneceſſary torment. And therefore he muſt with his fore-finger feel ſo long upon or about the place, where the Patient complains of moſt pain, until by the Patients greateſt ſenſe he do find out the true place; which, to avoid all miſtake, he muſt touch again and again, and then perform the operation of Burning accordingly.

 Q. Pray,

Q. Pray, Sir, inform me, Whether the people in *China* and *Japan* are ſubject to the Gout?

A. This evil raigns as well in thoſe parts of the World, as in *Europe*, and even among the *Hottentots* on the *Cape* of *Good Hope*.

Q. Do theſe Nations cure themſelves and others of the Gout, ſurely and ſpeedily?

A. No, they do not, except it be caſually: which may be wondred at.

Q. What's the matter, ſeeing they have poſſeſſed this excellent means of Burning from immemorial times?

A. 'Tis not the want of a good remedy, but their ſtubborneſs, ſuperſtition and perverſe cuſtome, that they do not cure the Gout but by chance or good fortune. For they have been taught indeed to burn in very many, but yet in certain determined and preſcribed places of the body; not being to be induced to tranſgreſs thoſe preſcriptions, though the pain ſhould require it. If then

it

it chanceth, that the Gout ſits juſt in the place, where they are accuſtomed to burn, it is cured; but if it happen to be ſeated one inch more or leſs from the place prefixed, and call for the operation of Burning, they let the Patient complain and cry out, and will not ſuccour Nature where ſhe needs it. And this is the true cauſe, why they enjoy not that benefit againſt the Gout by this way of Burning, as they might do.

Q. Is it then allow'd and adviſable to burn upon all places where the gouty pain is ſeated, though there be Veins, Arteries and Nerves underneath?

A. Yes, without exception; foraſmuch as this kind of Burning, being perform'd after my preſcription, cannot hurt theſe parts or veſſels; yea 'tis beneficial, by this burning to diſcharge the ſwollen veins and arteries of their damps: And therefore the preſcribed pellets may and muſt be burnt out juſt upon them; as ſhall be more particularly directed hereafter in the *Tooth-ach.*

Q. But now, the place being found out, is there nothing that may hinder the Burning?

A, If there be any hair upon the place affected, that muſt be ſhaved off with a raſor; in regard that the leaſt hair impedes the Burning, becauſe it keeps the fine pellet from perfectly touching the skin.

Q. Is there nothing elſe in the way?

A. If the place, where the Burning is to be made, be fatty or moiſt, that fatneſs and moiſtneſs muſt be taken away, and the place duly cleanſed and dried: That done, put the little pellet upon the right place, and there burn it, repeating it ſo often till the gouty pain be gone.

Q. But how may it beſt be known, what effect this Burning hath produced?

A. The Patient will ſoon find that by the diminution of the pain and of the inflammation, and the Maſter, that adminiſters, muſt, (if the Burning have been made upon an ordinary

place

place of any tender limb, to three, four or five times ſucceſſively,) preſs with his fore-finger hard upon the *Eſcar*, to learn whether the dolorifick gouty matter be wholly drawn out or not, which the Patient is with freedom to declare, if he means to be fully cured, and not in part: For, if he deceives the Maſter, he moſt deceives and wrongs himſelf.

Q. If the pain with three pellets be quite removed, as commonly it is, will it be neceſſary to trouble him with any more?

A. By no means.

Q. But in caſe the Patient, contrary to expectation, ſhould out of tenderneſs and effeminacy, in the burning of the firſt pellet, which cauſeth moſt pain, cry out and grow impatient, what then?

A. The Maſter in that caſe is not to mock or laugh at him, but only ſhew a chearful countenance, and entertain the Patient with a diſcourſe of the excellency of the remedy, of the ſhortneſs of the time that the operation

tion will laſt, and of the number of perſons that have been cured thereby.

Q. But pray tell me, Sir, what's the reaſon, that this Burning hath been ſo many years hid from us *Europeans*, whereas it hath been experienced for ſo vaſt a time in thoſe *Indian* Kingdoms, where it is ſo common, and is uſed for the moſt part with great benefit?

A. This is to be imputed to the careleſneſs and conceitedneſs of the *Europeans*, becauſe having ſo good an opinion of themſelves, they are aſhamed to learn any good thing from thoſe Pagans; as if they alone were poſſeſſed of all knowledg, and thoſe Nations had no ſhare at all in it: Without which conceit and negligence, this excellent remedy might have been long before communicated to theſe parts of the World.

CHAP.

CHAP. XIII.

Treating of the miſchiefs, inconveniences, and dangers of the Burning miſuſed.

Q. BUT, may any ill be occaſioned by this Burning?

A. There may; and even in *Japan*, *China*, and other places, conſiderable miſtakes are committed in the Uſe of this Burning, whereby ſome, uſing it without fear or wit, do cauſe not only grievous and fiſtulous wounds, but alſo lameneſs of limbs.

Q. Pray, explain to us more particularly, how theſe evils proceed from this Burning miſuſed?

A. To be ſhort, when, after the manner of ſome *Japoneſes*, the Burning is made too much and too deep, without due regard had to the places to which the Burning is to be applied: Whence it comes to paſs, that Nature being unable without help to caſt off the *Eſcar* (which is great

and

and thick) the purulent matter remains within, and eating in from time to time, cauſeth a deep ulceration downwards.

Q. What danger is there of lameneſs, in caſe of imprudent Burning?

A. When he that performs the operation, burns the Nerves and Ligaments too hard, that may eaſily occaſion convulſions of limbs and lameneſs: Which evil yet needs not to be feared (no more than that above-mentioned,) if you employ a good Maſter, or follow my preſcription.

CHAP. XIV.

Of the Serous ſwellings of the Gout, bred by accident, and the Cure of them.

Q. OF what matter do theſe Swellings conſiſt?

A. Of a Serous matter, pervaded with ſaltneſs, moſtly cauſed by accident through pain; being of little danger, and

and not troubleſome to cure; eſpecially in or about the Joynts of the limbs, in which theſe aqueous tumors are very eaſily bred by pain.

Q. It ſeems, you make no great matter of the cure of theſe ſwellings, which yet Phyſitians count very troubleſome to cure, knowing that they are not to uſe any repercuſſive means in this caſe?

A. 'This ſerous humor cannot be better diſcharged than by our way of Burning; and that is ſo ſure and ſafe, that no body ever needs to apprehend from theſe ſwellings any ill, much leſs incurable nodes or knots, foraſmuch as by our Burning the humor and other feculent matter evaporates, whereby alſo the part affected is ſtrengthned, and preſerved from all putridneſs.

CHAP.

CHAP. XV.

Of the Nodes and Stony Tumors, and their Cure.

Q. WHence ariſes that Stony or Chalky hard ſwelling in the external parts?

A. From the *fæces* or ſediment of the ſerous ſwelling; as hath been taught in the Symptoms of the Gout.

Q. Is there a difference to be made between theſe hard Tumors?

A. There is; for there is a great difference between a *Schirrus* that is hardned, unmovable and indolent, and ſuch an one as is but coming on, and not yet hardned.

Q. Are both theſe kinds curable?

A. The *firſt* yields to no remedies; the *other* is beſt and ſooneſt cured by our Burning, whereby it is fully diſcharged, without any relicks remaining behind.

Q. Have you experience hereof?

A. I had a notable one in our chief Chirur-

Chirurgion, *Francis de Ray*, a very skilful Master, who in his Art had serv'd our *East-India Company* near 30 years. He was exceedingly tormented by the Gout, and got a *Schirrhus* upon the fore-part on his right hand, which though it took not quite away the Use of the hand, yet did very much disable and weaken it by a notable intumescence; which being by my advice burnt and so opened, was in a little time perfectly cured; the matter of the *Schirrus*, thence discharged, white like mixed chalk, which the Patient himself took up with a *Spatula*, and having laid it on a paper, shew'd it me, being dried; whereupon his hand was so strengthned, that he could use it at pleasure. In like manner the same person freed himself from such another imperfect *Schirrus*, seated upon the great Joynt of the great Toe on his left foot.

Q. When, I pray, is the best time to perform this Burning on the head of the imperfect *Schirrus*?

A. Then when the Gout returns

again

again to the ſchirrous part; which very eaſily comes to paſs in thoſe that are much ſubject to the Gout; for, in following this Preſcript, you kill two Birds with one ſtone, and cure at the ſame time the Gout and the *Schirrus*.

Q. Will not this Burning mollify and cure a *perfect Schirrus*?

A. I have not tried this hitherto; mean time I truſt, there are means to be found, if not totally, yet in part to remove this evil.

Q. What then think you to be moſt adviſable in this caſe?

A. To open, (as often is done and muſt be done) the skin, and to take out the matter of the *Schirrus* as far as is poſſible, and that done, to heal up with my *Coridons* or Leaf-plaiſters the skin as well as you can.

Q. But then, if this ſhould ſucceed well, can you preſerve the place thus weakned from a new afflux of humors?

A. I think, I can, and that after this manner: If the *Schirrus* were, for example, upon the knuckle of the fore-

finger,

finger, I would then duly burn the limb under it on the hand, and thereby intercept all ill humors, and so keep them from flowing to the weak part.

Q. But what, if that should fail you, and the Gout surprise the limb with a new afflux of humors?

A. Then should I resolve to hinder those humors from coagulation and induration by the advantage of our Burning remedy; by which means you may at least take away the disfigurements, which these nodes cause in the limbs, if you cannot restore the use of the limbs.

Q. It seems, you have some hopes even of the last?

A. I have, because I know, that the nodes do lodg not *in* the very Joynts, but *about* them; and being discharged one way or another, 'tis found that the Joynts are free, provided only that the veins and arteries, yea the nerves too, be not so obstructed by the bigness, hardness and diuturnity of this stony tumor, that

the pervaſion of the Blood and Animal ſpirits cannot by fit means be reſtored; in which caſe the limb muſt needs remain ſtiff.

CHAP. XVI.

Whether there be different ſorts of the Gout, and an Eſſential difference betwixt them?

Q. ARE not almoſt all Phyſitians of opinion, that there are different kinds of the Gout, eſſentially differing from one another; or at leaſt, that there is the Cold and the Hot Gout?

A. They are; but they miſtake, being miſled by the *external Symptoms*: For, all Gout ariſeth from cold, dry, and malign damps.

Q. But yet the Gout may be diſtinguiſhed?

A. It may, in divers reſpects, and principally, *Firſt*, in reſpect of the Limb it ſeizes on; whence are the

names

names of *Chiragra*, *Sciatica*, *Podagra*, &c. *Secondly*, in respect of the quantity, and quality, grossness or subtilty of the Gouty matter, more or less malignity; whence proceed the denominations of the Running and Fixed, Young and Old, Adventitious and Hereditary Gout. *Thirdly*, in respect of the greater or less afflux of humors. *Fourthly*, the Gout is either with nodes, or without nodes. *Fifthly*, there is a Gout which is seated in or about the Joynts, and another (though that be rarely perceived) which lodges it self in the midst of the limbs: And this is to be noted against all those, who will not acknowledg such a Gout for any Gout; which is a great mistake, and no longer tolerable, because Experience teacheth us otherwise.

CHAP. XVII.

Means useful to prevent the Gout.

Q. WHat general means do you think to be good to prevent the Gout?

A. These following: *First*, you must beware of windy meat and drink. *Secondly*, you must avoid great and violent commotions of the mind, especially the passion of anger. *Thirdly*, neither must you put your body into too violent motions and exercises, nor afflict it with night-wakes. *Fourthly*, you must take continual care to keep your body soluble, and to prevent costiveness, nor to remove the same too suddenly. *Fifthly*, 'tis beneficial, to take a gentle Vomitive after your meal, once a week. *Sixthly*, as soon as you perceive any signs of a Fever (the mother of the Gout,) then is it proper to take a sudorifick, by the advice of some experienced Physitian, to open the pores, and

and to promote evaporation. *Eighthly*, ſince that many of the chief Phyſitians forbid wine to Gouty perſons, as if it were poiſon to them; (though *Sennertus* is not ſo peremptory therein, but that he allows even to thoſe that actually are in a gouty fit, a cup of good and ſincere *Rhiniſh* wine, eſpecially if the Patient cannot forbear it:) I ſee no reaſon in the World, why theſe Patients ſhould be ſo quite debarr'd this ſtrengthning and cordial liquor, (wine,) as in and after the fit; eſpecially if it be a good condition'd wine. And my opinion is, that ſuch a wine is ſo far from being noxious, that it is beneficial to them, for many reaſons, which *Van Helmont* alledgeth at large in his *Book* of *Fevers*; whoſe judgment I cannot but ſubſcribe to in this matter.

CHAP. XVIII.

Of the Tooth-ach or the Gout of the Teeth, and the Cure thereof

Q. IS there alſo a *Gout* of the *teeth*; for I have been inform'd by Dr. *Wilhelmus de Ryne*, who lately is arriv'd here, that there is publiſht a treatiſe in *Europe*, entituled, *Of the Gout of the Teeth?*

A. Thus is very properly expreſt that kind of tooth-ach, which hath the ſame proximate Cauſe with the Gout, and ariſeth from cold Damps, as the Gout doth, which otherwiſe, according to the common opinion is bred from Defluxions.

Q. But ſeriouſly, do you think, that the Gout and Tooth-ach come from the ſame Cauſe?

A Ti's certain to me (whatever ſome may alledg to the contrary,) that the next cauſe, the part affected, the ſeat, the ways, the ſignes and ſymptoms are the ſame in theſe diſtempers

tempers, and do agree together.

Q. Is then the Cure of the Tooth-ach to be perform'd after the ſame manner as of the Gout?

A. By no means; the Tooth-ach is to be cured in another place, becauſe that the place, where the pain hath its ſeat here, is within the mouth and the teeth, where you cannot come to burn with our *Moxa*?

Q. Would you then have the *Temporal Artery* open'd with a lancet, (this ſeeming to be the way by which the evil damp may be expelled out of the teeth;) as ſome hath ventur'd to do, to the great eaſe of the pain?

A. This means is too dangerous, becauſe it is very ſubject to occaſion an *Aneuriſma*, and ſpends too much of the vital ſpirits.

Q. What do you ſay then of ſcarification in the neck or upon the ſhoulders; or of purging, or of blood-letting?

A. Theſe and the like remedies ſeldom give eaſe.

Q. Would you have then the aching Tooth pulled out?

A.

A. Not at all; that way being a desperate one, and not only accompanied with great pain & mischief to the poor Patient, but also occasioning many evils, and even death it self. But take me right, I pray; for I here only speak of that kind of Tooth-ach, which is above described, not of that which comes from the *Rottenness* of teeth.

Q. What then, may we follow *Spigelius*, whole manual operation *Scultetus* mentions in the 18th of his *Chirurgical Observations*; who with his knife, heated red-hot, did cut off that little branch of the temporal artery which runs through the Ear to the teeth; by which means the pain presently vanished and never return'd.

A. Tis true, that *Scultetus* speaks with great commendation of this device, calling it a Chirurgical remedy of wonderful vertue; which the Author hath first practised upon himself, and afterwards, in *Scultetus* his presence, upon others (always with good success:) And this hath been further improved by others:

For

For whereas *Spigelius* made uſe of a red-hot knife, to cut off the ſaid little branch on the outſide of the Ear; others have uſed a little flat cauterifing Iron, in a ſilver caſe, that they might go ſafely, and not burn deeper than was fit; and therewith they have burnt off and ſear'd *within* the Ear, the ſame ramification of the *Carotid Artery*, with the like happy ſucceſs: As I my ſelf have experienced 26. or 28. years ago at *Arnheim*, where Dr. N. *Coets* did, by this means, immediatly free me from an intolerable tooth-ach. I have alſo underſtood here in *India* from very credible Perſons, that D. *Godefridus Dellius*, Miniſter at *Kooten* near *Wyck* of *Durſtede*, hath cured many of that pain by this very means.

Q. Since this is ſo excellent and effectual a remedy, ſhall we then ſtand by it, or is there ſomething to be ſaid againſt it?

A. So there is; and to deal plainly with you, it ought to yield to a better remedy, *viz.* to our burning with

Moxa

Moxa, the which in the Gout of the Teeth ſerves not only for a diſcharging but alſo for a revulſive intercepting remedy, which always produces good (if uſed according to my preſcript) and never the leaſt evil. For, whereas by the former way, of uſing the red-hot knife and the cautery, the body loſes one of the neceſſary and the nobler kind of blood-veſſels, to the detriment and ſpoiling of the teeth; by our way thoſe veſels are preſerved entire and unhurt. T'is true indeed, that the pain of the teeth by the former art is ſo removed as, that it never returns (in caſe that whole branch be burnt off;) but this is alſo true, that by ſuch a cauteriſing operation there is for ever cut off that afflux of the blood and vital ſpirits, through this fear'd artery, to the teeth; whereupon at laſt muſt follow an exiccation and mortification of the teeth.

Q. Since then you prefer your burning with *Moxa* before all other remedies in the Tooth-ache alſo, pray, teach me, where it is to be applyed?

A.

A. Juſt upon the *temporal artery*, where the ſame in the Temples, not far from the Ear, beats ſtrongeſt in a violent Tooth-ache; which is that place where Chirurgians are wont to apply their Maſtick-plaiſters, &c.

Q. But is the burning with *Moxa* upon the *temporal* arteries not too dangerous?

A, Not at all, if your work be done carefully; yea it is a means very beneficial, and hath been practiſed by the father Phyſitians, of *Hippocrates* himſelf.

Q. After what manner then is this Burning to be performed; muſt it be done as in the caſe of the Gout?

A. Juſt ſo; only you muſt in this caſe Kindle leſſer pellets, and theſe to the number of three upon one place, and no more; though it be not forbidden, at ſome little diſtance from the burned place to perform anew the like burning; which may be done not only without fearing the leaſt miſchief from it, but alſo with an expectation of more eaſe.

Q. Is this Burning followed by a Mitigation

Mitigation or by a Removal of the pain?

A. It performs both, in an admirable manner, and that instantly, or presently after, without fail; unless, unknown to the Patient and Operator, the Tooth-ach should proceed from a hidden rottenness of the Teeth.

Q. But, Sir, how will you make it out, that this is a revulsive and intercepting remedy, and withal discharging the part affected from the evil which afflicts it?

A. This is as clear as the Sun at noon-day, and that from the effects: For the Damps, which were already by the expelling power of the Heart driven out into the place that is between the membrane and the teeth, and there produced so great pain by the expanding of the sensible membrane, are by this our Burning drawn back to the place where the Burning is made, and other Damps intercepted that were on the way, and so the body, according to wish, disburthen'd from both, and the blood purified.

Q.

Q. Mean time the learned *Sennertus* ſaith, that the true means duly to purge the blood hath not yet been found out: Is that true?

A. It is; for the ways hitherto found out to purify the blood do not deſerve that name. For, the matter being well conſidered, they do ſomething elſe than diſcharge the blood of its impurities: And I am of opinion, that unto this very time there hath been found out no better means for that purpoſe than what we here propoſe; foraſmuch as thereby the Blood is ſuddenly and moſt ſafely purged of all noxious damps.

Q. What is to be done after the Burning for the Tooth-ach?

A. After this ſlight Burning there remains only a little gray ſpeck, which needs not to be look'd after, becauſe it dries and heals up of it ſelf, and ſerves till then for a vent to the evaporating damps.

AN

AN APPENDIX

Concerning Three Remarkable OBSERVATIONS.

OBSERV. I.

About the Removal of the Falling-Sickneſs *by our way of Burning with* Moxa.

Iacobus Jonas, about 13 years of age, Son of *Jonas Aertz*, who was chief Chirurgion in the Hoſpital of the Noble Company in *Batavia*, having taken a fancy (againſt his Fathers command) to ſee the ſad and diſmal agonies of dying perſons in a place where deſperate and incurable perſons were lodged, did upon a Sunday morning ſee one of thoſe give up the ghoſt in ſo affrightful a manner

manner under ſuch terrible convulſions, that being more than uſually terrified therewith, he could not forbear to ſpeak of it at Table with amazement : At which relation his Father being much troubled, did ſeverely rebuke him for ſo dangerous a curioſity, ſtrictly commanding him, never to repair to that place again, from an apprehenſion, leaſt one time or other he ſhould rue ſuch a curioſity. But behold ! The boy laying himſelf down upon a bench after dinner, to take (as 'tis common in that place) a nap in the afternoon, there appear'd to him (as he related afterwards) in a dream that fearful departure of the dead, ſo lively to his fancy, that in a fright he awaken'd, crying out a loud, and, ſeiſed on with a terrible fit of the *Epilepſy*. To which diſtemper he remained a great while ſubject, and in ſuch a manner, that upon the leaſt diſturbance he fell into new fits, of which his Father was not able by any of the means by him employed to free him.

This

This did ſo grieve the good old man, that in all likelihood it contributed not a little to his haſty death.

It hapned, that upon occaſion I viſited the widow of this Chirurgeon, where ſeeing this Youth halting, I asked what the cauſe of it was. He ſhewing me a ſwelling above his left knee, accompanied with grievous pains; I was apt to conclude that it was a Gouty diſtemper, and reſolved, thereupon, with the conſent of the parties concerned, to treat it as ſuch; employing my way of burning, which I did with three pellets conſumed on one place: whereupon all pain being vaniſhed, the youth inſtantly walked without any inconvenience. I put upon it a Coridons plaiſter, and order'd him to renew it twice in 24 hours. And ſince that time he never had any fit of the Falling-ſickneſs; doubtleſs becauſe that the venemous Damps, which cauſed this grievous diſtemper, had been evaporated out of the body, or rather had been thence drawn out by the *Moxa*. And 'tis

obſervable, that (according to the relation made me by the Lad's Mother,) this Damp never cauſed in him a fit of the Falling Sickneſs, till it had firſt for a while tormented the place above-mentioned, no otherwiſe as if it had been the Gout. Now, when this peccant matter did aſcend from the knee to the Head (which uſually fell out every ſixth or eighth day,) it was attended with a ſenſible Cold in the paſſage of this Damp, yet acting ſo ſlowly, that the Youth had time enough to give warning to his Mother of a new fit, that ſo ſhe might take the better care of him.

OBSERV. II.

Concerning the Cure of a Mad Female-*Slave, by the Burning with* Moxa.

URſula, one of our Female-ſlaves, being ſent out to buy ſome fiſh for our family, and come to the place

place where the Fiſher-men uſe to be with their boats, and having ſeen one of them arrived with fiſh, ſhe ſtept over ſeveral of thoſe boats to get into that, where ſhe might buy. Which having done, and ſtepping back again over thoſe boats to ſhore, ſhe was frighted at the ſudden and unexpected ſight of a drowned Humane body, ſhe had ſtept over, that had been brought up to be viewed by the appointed Officer. Which fright did ſo ſeize her, that ſhe fell down and quite fainted away. But being ſomewhat recovered, ſhe was brought home with the fiſh in her hand, but out of her wits; which the ſame night was follow'd by ſuch a fit of *Madneſs*, that at firſt we knew not what to do. But having recollected our ſelves, we reſolved to ſend for the *Guinam*-Doctreſs, to hear her advice, ſince ſhe had ſo ſucceſfully cured me of the Gout. She came the next morning, and being well inform'd of the circumſtances of this caſe, and demanded whether ſhe knew any re-

medy for it, ſhe anſwer'd, That ſhe would uſe her Art, and hoped God would bleſs her operation. What doth ſhe? She bids the other ſlaves that were preſent to hold this poor ſhe-ſlave faſt, and binds the hair of her head cloſe together, into a knot; which done, ſhe makes one of the moſt robuſt ſlaves to hold that hair-knot with his hand, and to turn the Patient's head which way ſhe, (the Doctreſs) would have it. Whereupon ſhe began to burn with her *Moxa* cloſe under the hair, from the fore-part of the head unto the neck, and from the neck again to the fore-part, round about; performing this ſo artificially and gently, that hardly any mark conld be perceived: Whereupon this poor mad creature, to the admiration of us all, fell into a ſweet ſleep, of which ſhe awaken'd towards evening in very good health and in her right wits, without ever after relapſing into that grievous fit of madneſs again; it being now about Ten years ſince her recovery.

O B-

OBSERV. III.

Touching a Strange Catalepsis or *Stiffness cured by the Moxa.*

ONe of our she-slaves, which my Wife had lent to our chief Chirurgion *William Persant* (who a little while before had married one of my daughters,) was about evening, as she was at work without doors upon the wall, suddenly surprised with this distemper, so that in a trice she became as stiff as a statue, without any hearing, seeing, speaking, or moving any limb. The said Chirurgion having tried upon her the utmost of his skill to no purpose, and I being made acquainted with the condition of this wretched slave, my Wife and Son, upon my desire, went immediately to her, and according to my direction burned her upon the Arteries of her temples: Which was no sooner done, but she recover'd the use of her senses and the Motion of all her limbs,

and ſhe enjoys to this very day a good ſtate of health.

I conclude with the advice of the never too much celebrated *Nicolaus Tulpius*, in the *firſt Book* of his *Medical Obſervations*, *chap.* 8. where he ſaith, *You Chirurgions*, take good notice of the wholſome Uſe of *Cauſticks*; *it ſhall turn to your Credit, and to the Benefit of your Patients.*

FINIS.

Medico-Chirurgical

Observations.

By *Henry* van *Roonhuyse* Practitioner of Physick and Chirurgery in *Amsterdam.*

Englished out of Dutch *by a careful hand.*

LONDON:

Printed by *H.C.* and are to be sold by *Moses Pitt* at the *Angel* in St. *Pauls* Church-yard, 1676.

TO

The Noble and Famous

NICOLAUS TULPIUS

Burghemaſter and Counſellor of the City of

AMSTERDAM;

And at preſent

One of the Commiſſioners of the

States of *HOLLAND,*

Theſe *Medico-Chirurgical Obſervations* concerning ſome Un-common Caſes in

WOMEN

Are, for a Teſtimony of Gratitude and Reſpect,

Dedicated by

His Humble and Obliged

Servant

H. Van Roonhuyſe.

THE PREFACE To the READER.

Socordis eſt, acquieſcere in Veteribus.

THE Motives inducing me to publiſh theſe Rules and Obſervations are divers: The chief of them is, that what I take notice of therein, is not only ſerviceable to my ſelf in my practice, but alſo uſeful to my Fellow-creatures; to whom I intend, if my health and leiſure permits, to impart ſome others; not doubting, but the Reader will take them in good part, and in caſe he find any thing obſcure or doubtful, he will oblige me by giving me notice of it, and thereby an opportunity of explaining my ſelf.

As to the remaining Obſervations.

I shall say little; only I take leave to intimate, that according as these, that are now printed, shall meet with acceptance, so I shall be excited to publish those. The present ones are by me esteemed the most necessary, and such about which most mistakes are committed, and that are of all the Chirurgical Operations not the least, but some of them of the most difficult. By these you may judg, whether we do content our selves with the Writings of the old Physitians and Chirurgions; or whether we go further, taking heed to these and other Observations, to the ease and benefit of Patients. Herein then you may take notice, that if there be so much to be said to so few Observations, what may not remain to be written of so excellent an Art as Physick and Chirurgery. Accept of this small number of them, and use them for your self and others, and expect in time, God vouchsafing me life and health, more of this nature. Farewel.

THE

OLDOUT
PLACE
HOLDER

THE FIRST PART OF THE *Medico-Chirurgical* Observations About the INFIRMITIES OF Women.

Observation I.

Of a strange Rupture of the Uterus.

Written to the Famous and Experienced Job van Meeckren, *Chirurgion in Ordinary to the City of* Amsterdam, *the* Hospital, *and the Noble Colledge of the* Admiralty.

Wherein several such-like remarkable Accidents about the Uterus, *and other odd Cases of happy Cures are related.*

SIR,

WHat *Hippocrates* saith of the *most Dangerous Diseases*, that they *require the most difficult remedies*,

medies, may be juſtly applied to that dangerous Birth call'd *Cæſarean*; though, if good Authors may be credited, many have had good ſucceſs therein: Of which not a few differing Examples are recorded by the learned *Franciſcus Rouſſetus*, in his Book *de Uſterotomotokia*, and by ſome others. But in theſe our times very little is ſpoken of this operation, for ſeveral reaſons:

1. Becauſe of the ſlender knowledg that moſt Midwives have, not only of this Operation, but alſo of others. For if they knew or conſidered, how neceſſary, in a well-conſtituted ſtate, this operation and extraction of the *fœtus* (the Mother being dead before) is, and that *Civilians* account it Homicide, to bury a dead woman big with child, before the child be cut out of her belly; they would be more concerned for it. *Juriſconſulti eum necis damnant, qui gravidam ſepelierit, non prius extracto fœtu, quod ſpes animantis cum gravida periiſſe videatur*; lib. 2. *De*

mortuo

mortuo inferendo, & sepulchro ædificando. So that, when it happens that a Woman great with child cannot be delivered, there should always a Man-midwife be at hand, to save the fruit and to perform this noble operation, in case the Mother die before she be delivered. *Valerius Maximus, l.* 1. *cap. ult.* relates, that a certain *Gorgias* coming into the world after his Mothers decease, did by his unexpected cry stop those that carried the Corps, and so was carried out before he was born. See hereof *Fabritius Hildanus* in his Answer to *Michael Dorengius*, Chirurgion of *Breslaw.*

2. Because it is a difficult and troublesome operation, especially for such as are not experienced in Anatomy, and consequently know not what the *Cæsarean Section* means. Which is nothing but an extraction of a *fœtus* out of the womb of a woman, that cannot be delivered but by the incision of her belly and womb, so to be made as to save, if possible, both mother and

child,

child, and that without impairing Fruitfulneſs; of which laſt ſee, among others, *Paulus Dirlewang*, who performed this *Cæſarean Section* upon a woman of *Vienna*, called *Margareta*, ſo as that a year after her cure ſhe was with child again: Whoſe time of travel approaching, and ſhe finding her ſelf unable again to be delivered, ſent alſo this ſecond time for the ſaid *Maſter*, who though he found the woman very weak, yet perceiving the child ſtrong and vigorous, adviſed again to uſe the knife as formerly, which the woman, who could not be ſaved without it, conſented unto. But her Mother and others diſſwading her from it, and exhorting her to truſt rather to Almighty God for her delivery than to undergo again ſo hazardous an operation, ſhe complied with them. But ſeeing that this woman had caried her former fruit *four* years in her belly, whence it was at laſt cut out by piece-meal, whereupon ſhe was happily cured; why might not ſhe

have

have been ſaved this ſecond time, if the child, which was ſtrong and luſty had been cut out by times.

3. Some are of opinion, that enough hath been written of this operation, and that nothing can be ſaid but what hath been already ſaid by others. But I am of a contrary opinion, that whatſoever hath been written of *Phyſick* and *Chirurgery*, is not to be compared to what yet may be written thereof.

As for an example, *firſt*, concerning the cutting ſuch an *Hare-mouth*, in which the upper Jaw-bone together with the Palat of the mouth is cloven, and the Lipps are a full inch gaping aſunder: How much doth ſuch an operation differ from the inſtructions left us by famous Writers?

Secondly, as to women in travel, whoſe dead fruit is to be taken from them, I obſerve, that the chief Authors that have written of it, have been very little verſed in that operation; nor that the inſtrument, cal-

led the *Hook*, is very convenient to pull out a childs head left ſticking in the mothers belly : And what ſmall uſe, if any at all, there is of the *Speculum matricis*, in this caſe, I leave to you to judg.

Thirdly, As to the taking out of the *Uterus* it ſelf, of which many famous Authors have written ſo much, I have largely treated thereof in a particular Obſervation, whence you will eaſily underſtand my meaning in this point.

Fourthly, At this very time we underſtand both by Letters, and from Patients, ſomething very conſiderable touching a new contrivance of *Cutting the Stone*, practiced in *France* at *Bourdeaux* by a Lithotomiſt called *Raous de Chaſtres*, now dwelling at *Niſmes*, uſed both upon old and young, and that after a quite other manner than hath been practiſed hitherto. For, after that the Patient hath been ſounded and felt by the Artiſt after his own way, without any bodies being preſent, he then together

ther with the Patient walks for half an hour in his chamber, and then puts him in his ſervants lap, who holds the Patients leg without tying him, and the Maſter uſeth no other Inſtrument but a little crooked knife, and no bands; nor doth he uſe any force in preſſing the belly, in lifting it up, or the like, thereby to get the ſtone between his fingers. 'Tis alſo done with leſs trouble and danger, without as much as obſerving the ſeaſon of the year, the Temperament of the Patient or his Age. He only thruſts two fingers into his fundament, ſo to get the ſtone; which having compaſſed with little pain, he conveys it with his fingers to the *Os iſchium* as far as he can: And then a little higher making an inciſion with his little crooked knife, of the uſual bigneſs, but ſomewhat higher, and obliquely, beginning from the ſide of the ſaid *Os iſchium*, and ſo continuing to the *Perineum*; which inciſion or opening is more (in that place) according to the grain of the Fibers;

as will be found, if viewed attentively. Now, a small opening made according to the grain of the fibers, will yield much more, and can by laceration be somewhat widened, if it have been made too little; (for the wound, that is to be made in cutting the stone, is better a little too small than too great;) and by this means with his fingers he easily draws out the stone, without the use of any other instrument; and after having cleansed the wound, he conveys and thrusts back the bladder to its place, whence it had been removed; preventing also the droppings of Urine, by dressing the Patient with an ordinary band, who in seven or eight days is perfectly cured. I have also read a printed letter, entituled, *La nouvelle maniere de tailler la Pierre*, i. e. *The new manner of cutting the stone*, wherein 'tis affirm'd, that then this Master had already cut, after this way, above 50 persons, of 20, 30, 40, 50 and 60 years of age, with so good success, that not one of them

all

all had died, yea that very few or none of them had had ſo much as a Fever. Thus you ſee, that Art is more and more improv'd by continual diſcoveries, for which we ought to praiſe almighty God, vouchſafing ſuch and the like new remédies to the benefit of mankind.

The Hiſtorical obſervation, Sir, which I have choſen to dedicate unto you, is of the *Rupture of a womb*, in ſuch a perſon, out of whoſe belly the *fœtus* was cut, after ſhe was dead. The hiſtory whereof is this: In the year 1658, the 24th. of *December*, I was ſent for in the morning about eight of the Clock, to come into the *Laurel-ſtreet*, to give my advice and aſſiſtance to four of the Town-Midwives. Theſe were diſputing amongſt themſelves, whether the fruit of this woman in travel lay right or not; which diſpute was the more eager, becauſe the poor Patient had then been already *four* days in labour, with great throws and pangs, highly complaining of grievous pains in her left

ſide, about and above the navel. The Midwives differ'd very much amongſt themſelves touching the condition and poſture of the child. One of them was of opinion, that it was turn'd right; another of them, that it was turn'd the wrong way, and was coming with its feet foremoſt; a third would have it, that it lay with his fundament before the paſſage, and that ſhe had had her finger in the fundament; and the fourth ſaid, ſhe had felt the child's hands. So that, after long inquiry, I did not think it ſtrange that they were thus quarrelling, and ſo wide from one another in their ſentiments; whence I collected, that it muſt needs be a difficult and dangerous caſe; finding, they could not give me any good information concerning the fruit, but inveighed one againſt another with keen reproaches of ignorance and miſtake: Which I interrupted by telling them, that theſe contentions and invectives were not the means of helping this poor woman, much leſs the hatred

which

which they ſeem'd to bear one another. Mean time I thought it moſt adviſable, to ſearch into the matter my ſelf, thereby to be enabled to prove by reaſons (of which they alledged none) which of all the four was in the right, and which not. And this being a dangerous work, I began with making ſearch of the ſtate of the child, by laying my hand upon the navel of the belly, and deſired the woman to hold in her breath, thereby to ſtraighten the fruit, and conſequently to put it into a ſtronger motion. At which time the poor woman cried and wept bitterly, and complain'd exceedingly of intolerable pains in her belly and loins, yet moſt of all above her navel, about the lower part of her ſtomach: The other parts of her body I found to be very well, but not as in a woman in travel; for the *internum Ulteri oſculum* was yet very cloſe, nothing but a little moiſture ouzing out; but as for a child, there was no appearance of any ſuch thing to be perceived.

ed. And this poor woman having had more children, ſhe ſtrove to bring forth this child with all her might; to which he was encouraged by the Midwives aforeſaid. But I, having made careful ſearch, and weighed all things, forbid the Patient to ſtrive ſo hard, forasmuch as the child, in my opinion, was yet in the membrane call'd *Chorion*, which is the moſt outward coat wrapped about the Fruit; and that thoſe Midwives did all miſtake the ſtate and condition of the child, eſpecially ſhe that affirm'd, ſhe had had her finger in the childs fundament; and I added, that, whereas they all judged thoſe pains to be throws for bringing forth, I was of a contrary judgment, *viz.* that by thoſe pains no child would be brought into the world; but that, if this woman ſhould be delivered of a child, there muſt be made an opening in her Belly, ſhewing them the place where; which operation, I ſaid, had been often performed, witneſs ſeveral excellent Writers, who call it the *Cæſarean Inciſion*.

To

To which the Midwives anſwered, that they had never heard of ſuch a dreadful operation. However, the poor woman, who was *French* by nation, lookt upon me with ſome chearfulneſs, and intreated me, that I would uſe this operation upon her, throwing off at the ſame time her covering, and preſenting her belly to the knife. Which, when I ſaw, I ſaid to her in a kind tone; Dear friend, you hear, that theſe women have never heard of this operation; beſides, 'tis not the cuſtome in this Country, to practice ſo extraordinary an operation without the conſent of the Lords the Burgemaſters; after the ſame manner, that the Operators in cutting the Stone are wont to do: And I ſhould very much be blam'd and reproached, if this unuſual and difficult operation ſhould fail of good ſucceſs; which God forbid.

Notwithſtanding which, this poor woman made inſtance, that I would put my advice in execution; for, without it, ſhe ſaid, both ſhe and her

her child would be loſt : Aſſuring me at the ſame time, that ſhe had formerly been preſent at ſuch an operation in *Paris*, and therefore intreated me to make uſe of the ſame upon her. Whereupon I encouraged her, and ſaid, I would conſult with ſome of the beſt Phyſitians in Town,& deſire their aſſiſtance and direction in this caſe. Which having been done by me, they diſſwaded me from it, becauſe of the great conſequence, eſpecially the woman being very weak. Returning therefore to her, I only preſcribed her an Emollient Clyſter, and exhorted her to ſome patience. The Clyſter was this.

R. *Fol. Biſmalvæ, m.* 1 ß.
Artemiſiæ,
Matricariæ.
Pulegii, aa m ß.
Flor. Camomill.
Melilot, aa pugil. iij.
Sem. aniſi, fœnic. aa ʒii. *Fiat s. a. decoctio; colaturæ ſumantur* ʒvij. *in quibus diſſolve Electuar. ſequens.*

Di-

Diacath. Lenitiv. ana ʒ *j.*
Ol. mucaginum. ʒjſs.
Miſce, fiat clyſter.

And to renew her ſtrength, as alſo to eaſe her pains, I preſcribed this potion following, to take now and then a ſpoonful of it.

R. *Aq. fœniculi* ʒiiij.
Artemiſia ʒij.
Cinnamomi ʒj.
Conf. Hyacinthorum ʒij.
Laud. opiat. gr. j.
Croci. ϑß. *Miſce, fiat potio.*

Coming to her again about two a Clock in the afternoon, I found the Patient yet weaker, and in appearance near death. Which made me give order to the Midwives, that as ſoon as they perceived her ſenſes fail her, and that ſhe was agoniſing, they ſhould forthwith give me notice thereof, ſeing that the child did yet ſtrongly ſtir in the mothers belly, and, if they ſpoke in good time, there was hope to ſave the child, and ſo to acquit our ſelves of our duty. There paſſed not full four hours after this, but I re-

received news that the woman was dying ; which made me call, in my way, upon ſome Phyſitians I knew, *viz.* the learned *de Vick*, *Piſo*, *Sylvius*, and *Walterus* ; of whom *Francis de Vick* and *Piſo* promiſed to follow us.

Being come there, we found the poor woman dead, having a key betwixt her teeth to keep her mouth open ; which is practiſed amongſt the vulgar, who thereby think for a while to keep the child a live, as they alſo thruſt their fingers into the *interuum uteri oſculum*, to keep *that* likewiſe open, for the childs reſpiration. Now, when I laid my hand upon this womans belly, and perceived no motion, I leapt upon the bed, and gave Dr. *Sylvius* my Anatomical knife to open the Belly with all ſpeed at the place where I formerly had found the greateſt motion, to wit, on the left ſide, where the *fætus* lay, hoping to find it yet alive : But we failed of our hope, for it was dead, though in all appearance it had been

been so but a very little while, seeing the poor thing had its lips yet cover'd with some, and very fresh, so that 'twas evident, it was but very lately expired.

Examining the posture of the child, we found, that it lay in the midst of the Belly, between the Guts, together with its After-birth in part so firmly fastned to the *Colon*, that we could not separate it from thence without laceration. By the other parts it was yet fast to the *Uterus*, an inch broad; which, in my judgment, was the only thing that enabled the child to live two or three days in the mothers belly, *without* the womb; and I looked upon it as a wonderful Providence of Nature, that the After-birth, although it was by the shooting out of the Fruit removed in part, had forthwith so closely fasten'd and united it self to the said Gut, that it could perform its function, it being yet in part fast to the *Uterus*; as apears by *Fig.* 1. where,

AAAA, are the common integuments of the *abdomen*.

BBB, the Guts.

C, the Womb.

D, the After-birth.

EEEE, the Navel-ſtring extending to the After-birth.

F, the Rupture of the Womb.

G, the Bladder.

Firſt, we found the child lying between the Guts.

Secondly, the After-birth was in part faſt to the Guts.

Thirdly, the ſame as to its other part was yet faſt to the womb.

Fourthly, we found a great opening or laceration in the Womb.

Fifthly, we met with ſome black coagulated blood in the Belly.

And here we much wonder, not only how this poor woman came by this miſchief, but alſo how ſhe could endure ſo great pain, as muſt needs accompany it.

As to the *Cauſe* of this evil, I judg not that to be internal, but external; *viz*, ſome Fall, or Blow, or Knock, or

or some other outward accident wounding that part, whence store of extravasated blood was diffused between the membranes thereof, whereby the womb was then disenabled to endure any throws in the labour, and the strong & striving motion of the child, whose hand or hands broke through, and then the water breaking also, the child shot whole into the cavity of the belly, and so caused its own and the Mothers death.

Besides, there is this reason which made me believe the cause to have been external; for we found nothing in the cavity of the belly but black extravasated blood, and water, not at all mingled with any purulent matter, which shew'd, that it was not come to pass by any Ulceration; so that I must conclude, this Woman had either received a forcible blow, or had a violent fall upon her belly. Where it is to be consider'd, that in a child-bearing woman by such a force and violence the inward parts are more wounded than

the

the outward. For when the skin and other tegumens are ſtruck and contuſed, the extravaſated blood can be better conſumed, and by the pores of the skin diſcharged, than ſuch blood can be by the carneous membranes of the Womb, incloſed between two membranes. Beſides, the teguments of the belly may be by a knock preſſed inwards, whereby in ſome meaſure they evade the force; but the womb is a thick, ſoft, ſpongious, and in child-bearing women very much expanded part, cloſe woven through with Veins and Arteries; which, by reaſon of the conſent of all its parts with one another, cannot endure any violence, but receiving the leaſt contuſion, upon bleeding, preſently relaxes, and tends to putrefaction, which is promoted by the heat of the part. So that in our caſe the Womb was not able, as I ſaid above, to reſiſt the force and violent motion of the child in the labour, which, with its hands piercing through the weakeſt part of it, made way for the whole to paſs through,

and

and to fall into the belly. Whence it appears, that there was no other means but the *Cæsarean Section*, to save the Fruit and Mother. For that the Womb, being assisted, can resist mortification and putrefaction, I have found in divers cases, of which I shall here alledg one of the most considerable, which hapned when I served the eminently Experienced Chirurgion *Roger Rogertsen Berenaert*, who was sent for, together with Dr. *Francis de Vick*, to come to *Uylenburg*, to see a Ship-Carpenter's Wife, that complained very much of great pain about her fundament, and intreated my Master to view and search the part; who by his stilet found in the *intestinum rectum* somewhat of a bony substance, which being further searched, and drawn nearer, was found to be the two feet of a child, each foot of half a fingers length. This giving my Master ground to ask the woman, whether she had ever been with child, he was answered by her, she knew no better but that she was with child

now, and, to her beſt conjecture, four months gone. Whereupon my Maſter immediately went to work according to art, by extracting the Fruit by the feet through this unnatural paſſage; which was alſo follow'd by ſomething that came away from before. Behind, there were yet faſt ſome of the *vertebræ* of the back-bone; and the other parts of the body, I mean of the breſt and head, came not away but by parcels, and by the natural paſſage nothing came away but a ſmall rib. Theſe parts I waſhed with brandy to free them from ſtench: And it being winter, I expoſed them to freeze; and then brought all to the Learned Dr. *Nicolas Tulpius*, Conſul of the City of *Amſterdam*, to whom my Maſter ſhew'd it, relating to him the circumſtances of this caſe. The woman her ſelf was afterwards perfectly cured, by fit remedies reſiſting corruption, ſtrengthning the Womb, and removing the Fever.

I could alledg more Examples of Ulcerated Wombs; but what I have

ſaid may at preſent ſuffice. I ſhall now come nearer to my main deſign, *viz.* the *Cæſarean Delivery of a Child*, for the further improvement of Phyſick and Chyrurgery.

And to this purpoſe, *Sir*, I intend to treat at large of this *Cæſarean Section*, which, though it be a difficult and dangerous, yet is a neceſſary Operation: Which, according to the reſpective circumſtances of caſes is performable two manner of ways.

Firſt, to deliver a child-bearing woman of a *live* child, ſo as to preſerve both mother and child, when there is an impediment in nature to do it otherwiſe: Which is performed by opening the mothers belly and womb with a fit knife, thence to extract the Fruit alive, together with the coats and after-birth; and then by cleanſing the *uterus*, and healing up the wound, after the manner as the wounds of the lowermoſt *venter* are wont to be healed.

But this is not to be attempted, until the delivery by Midwives is deſpe-

rate, and till all other means prove ineffectual, and the mother is reduced to extremity, and cannot be delivered any other way; this being the only means left to preserve both Mother and child, which may prove succesful, if their forces be not too far spent, but are in some measure yet available; though it be not to be used, unless the Mother and fruit be so weak, that neither of them can be otherwise preserv'd. Examples whereof we have in *Scipio Africanus*, (who is the first recorded in history, that was thus brought into the world, his Mother not yet being quite dead;) in *Manlius* and others. And the said *Scipio* was the first of all, that was call'd *Cæsar* by the Romans, For they were not call'd *Cæsars* from *Julius Cæsar*, Emperour of *Rome*, but, as *Casper Bauhinus* observes, *sortiti sunt nomen Cæsaris, quod e matris cæsi fuerint utero.*

This kind of *Section* was made by a very strange and sad accident at *Sardam* in the year 1647. the 29th. of

August

Auguſt. For the child was not cut out of its Mothers belly, but the Mother coming to ſuccour her husband, who was by an enraged Ox puſh't to the ground, and mortally wounded, had her belly torn up from the right ſide to the left by the horns of the ſame Ox, and was her ſelf toſt up into the air, the fruit of her belly with all its appurtenances falling to the ground, and the Mother and child being afterwards found alive, lying *four* fathoms diſtant from one another. The man, call'd *Jacob Egh*, lived, after he had received his deadly wounds, 36 hours, and his wife, 41 hours. The child was found ſafe, only its upper-lip, one hand, one foot, and the genitals were ſwelled and marked with black and blew ſpecks; and it was by good care preſerved alive: For he was baptized the firſt of *September* by Dr. *Bergius* in the *New Church*, and called *Jacob*; his Godfather being *Peter van Bekeſtein*, Magiſtrate of *Weſſanon*, and he lived

to the 23th of *May* 1648; at which time he died, and was buried in the ſame Sepulchre with his Father and Mother.

But to return to our *Cæſarean Section*, there is an Author, call'd *Rouſſetus*, that hath recorded many and different examples of it, both of ſuch as he had received from credible witneſſes, and of ſuch as himſelf had performed. He is of this opinion, that a woman having yet any ſtrength, no time at all ought to be loſt of delivering her of the child, which otherwiſe muſt die it ſelf, and in all apparence kill the Mother. For, ſhe being open'd when her forces are not quite ſpent, there is hope of eſcaping death, if ſo be that the Operation be perform'd by an experienced and careful Artiſt.

As to the *ſecond* caſe of the *Cæſarean Section*, it is that which is done when the Mother is deceaſed, and the child yet alive. In which caſe the Chirurgion is to be at hand, even whilſt the Mother is yet alive, though ready to die, that ſo he may immediately perform that operation, and open

the

the Mother, to preſerve the child; for, when the Mother is dead, the child cannot live long, as receiving ſpirits and breath from the Mother; though, forasmuch as it lives by its own ſoul and life, it may live ſome little while after the Mother is dead.

Yet, *Rodericus a Caſtro* in his 4th book *de Morbis Mulierum* judgeth, that this operation is to be performed, not only when the Mother is in danger of death, but even when ſhe is dying, her ſpirits being not yet *quite* extinguiſh't; becauſe that the life and motion of the child-bearing woman ceaſing, the life of the child and the motion of its heart alſo ceaſeth, which it had received from the Mother through the umbilical veſſels; the child not taking in its breath at the mouth before the Navel-ſtring is broke off. Now its evident, that the Mother being extinct, the child cannot fetch any breath in its Mothers belly, whilſt 'tis incloſed in its coats and in the womb; Whence appears the neceſſity of this operation, if you mean

to get the child alive out of the Mothers belly ; whereas otherwiſe it muſt be ſuffocated in the womb as in a dungeon,to the great grief of ſome Fathers, who may thereby loſe either their illuſtrious name, or heirs to a conſiderable eſtate, or both. Of which not long ſince there hapned a ſad caſe at the *Hague*, when I was called to an *Engliſh* Counteſs,to deliver her of her child ; but coming too late , ſhe was open'd, and the child alſo, to my great trouble , found dead : which caſe prompt'd me the more to diſcourſe with you of this argument.

The neceſſity of this operation appears alſo from the *Spaniſh* Hiſtory ſpeaking of *Santius*, King of *Navar* , whoſe Mother being a hunting, was barbarouſly kill'd by the *Saracens*, giving her a wound in her belly, whereby the hand of her child came to ſhoot out, which being perceived by a noble man that was preſent, call'd *Gueverra*, he brought the child to the world thorow the wound, and bred it up ſecretly. And when

after-

afterwards there arose a great dissension among the Princes about the Election of a King, he acquainted them with the wonderful preservation and secret education of this child; whereby all disputes were composed.

But to proceed; I intend not to detain you, Sir, with the recitation of all the *causes*, that may produce hard labour, and a troublesome delivery; but shall only represent to you the cause that necessarily requires the *Cæsarean Section*, not to be avoided but by the loss of Mother and child. These are, in regard of the *Fruit*;

1. When that is too fat and too big in respect of the Mother, and therefore cannot possibly be brought into the world the ordinary way.

2. When more than one child strive to come forth together, and one of them being dead, lies in the way of the other,

3. When the fruit is a monster; for example, a child with two Heads, three Arms, four Hands, three Leggs, four Feet, *&c.* which case hath come before

the

the experienced Chirurgion *Steven Vennekool*, the 16 th. of *June* 1637. in one *Femmetie Jans*, wife of *Barent Jans*, Taylor, dwelling at *Amsterdam* in the *Wyde-steegh*, in the presence of Dr. *Nicolaus Tulp*.

4. When the Fruit is dead, and petrified ; of which an Example is recorded by *Johannes Albosius, Medicus apud Senonas*, which was of a child, that had lain inclosed in the womb of one *Colomba Chatry*, for the space of *eight and twenty* years, and was there petrified.

5. When the Fruit is all consumed but the bones, and by an Ulceration about the Navel shews the way of delivery ; of which there are divers examples to be found in *Roussetus* and others.

As to the causes in respect of the *Mother*, not being able to bring forth, they are these ;

1. When she is too streight to be deliver'd the ordinary way ; and that in regard of her years, having been married too young, or impregnated too old.

2. When

2. When by some scar the parts are hardned, or made narrower, or even grown together; of which hereafter I may alledg some examples in my own practise, when I shall come to speak *de clausura Uteri.*

3. When hard tumors arise in *collo Uteri*, which do so streigten it, that the woman cannot be deliverd the usual way, and the time of delivery being come, it cannot be delai'd, untill those swellings are ripen'd.

4. When there is any carneous excrescence in *Vagina uteri*; of which I had this very year an example, where both you, Sir, and Mr. *Rogert Berenart*, were called to assist.

5. When the *Os pubis* is grown unnaturally big, or stands out.

6. When the neck of the womb is grown callous, uneven, and hard, either by some impacted humor, causing a *Schirrus*, or *Lupia*, or by any other hardned swelling. Though 'tis certain, that when they are accompanied with any cancerous Ulceration, from a thin, sharp, blackish and fetid matter, such women, thus condition'd

dition'd, are never found with child.

6. When there is a carneous ſwelling within the womb, which vulgarly is called *Mola carnea*, faſtened to the ſide of the womb, and hindering the paſſing of the child.

But it happens alſo, that ſuch a ſwelling comes to grow to the Fruit it ſelf; of which caſe Authors do ſay, that when it falls out, ſuch children ſeldom come to maturity, becauſe ſuch ſwellings withdraw from them their due nouriſhment, and take away that competent room they require.

Now theſe Cauſes, which require this difficult Operation do ſufficiently indicate its neceſſity. But yet it muſt be well conſidered, whether it is to be executed in a deſperate natural Birth or not. Wherefore it will not be amiſs to weigh this matter ſomewhat more narrowly, and upon what occaſions this *Section* is moſt required, *viz.* *Either* when the Mother is living, and the Fruit dead; *or*, when the Fruit is alive, and the Mother dead;

dead; *or*, when both of them are yet living.

Varandæus ch. 6. lib. 2. *de Morbis Mulierum*, ſaith, that he cannot believe, the Child can be alive after the Mother is dead; affirming poſitively, that 'tis impoſſible, foraſmuch, as long as the Child is in its Mothers belly, it is maintained by no other life but that of the Mother: From which opinion I muſt diſſent. For the Child lives by its own life, and motion, and ſoul, though it be fed by the maternal blood; ſo that it may, notwithſtanding, live for a little while after the Mothers death. And this ſentiment I maintain with *Franciſcus Ranchinus*; and that both by the Authority of the Learn'd in the Law, and Experience. Only care is to be had, that as ſoon as the Mother is dead, the Operation be with all poſſible ſpeed performed; and 'twere to be wiſhed, that this matter in our Countrey were not ſo negligently skip'd over.

If the *Fruit* be dead, and the Mother

ther yet alive, then the above-recited Reasons touching a dead Child or a dead Mother ought to prevail.

But the learned *Varandæus* is of opinion, that the *Cæsarean Section* is not to be used when the *Fruit* is dead, and the Mother yet living, that the Chirurgion may not appear to have been the Cause of her death; but he would have this operation to be performed, when both Mother and Child are yet alive, and when 'tis impossible to bring the Child into the world but by this means; and then he thinks it better, to save one of the two, than to let them both perish. *This be.*

Now what concerns the Delivery of the Child, therein is no difficulty, nor danger. But, as for the Mother, though the wound, given her, be great and dangerous, yet 'tis not necessarily mortal, as we shall hereafter shew by many Examples. I conclude therefore with the famous *Corn. Celsus, lib.* 2. *cap*, 10.

Satius est, anceps auxilium experiri, The

The ſame is alſo preſcribed by *Hippocrates* in his *Aphor. lib.* 1. where he ſaith; *Ad ſummos morbos ſummæ ad unguem curationes adhibitæ optime valent.*

Wherefore this *Cæſarean Section*, however dangerous, is uſeful, and its uſefulneſs proved by many Examples, and learnedly diſcourſed of by *Franciſcus Rouſſetus* in *French*, tranſlated into *Latin* by *Caſpar Bauhinus*. But foraſmuch as that *Impreſſion* is very old, and hard to be gotten, I think it not amiſs here to ſet down one of his chiefeſt Obſervations, in the language, into which it hath been tranſlated, that by my verſion it may not loſe its luſtre: It is the ſecond Example, which he ſaw himſelf, and which is very remarkable, *viz.*

Cum quatriduum extremis & irritis conatibus partus divexata Bernhardina Arnolda *fuiſſet*, Stephani Maſſicault *e* Nangevillo *pago qui inter* Eſtampas, Puiſſethum & Pithuveras *ſitus eſt*, *uxor*, *atq; in extremis conſtituta*, *implorato meo per*

mari-

maritum auxilio, cum de Sectione *consilium audisset, vel reclamante marito, animo confirmato hanc in se experiri avide cupit: Idq; ita subito post intellectum consilium meum, ut nollet* Ambrosii Nigri *adventum expectare, quem, tanquam in hac re exercitatum, missurum me eram pollicitus, cùm ob gravissimum morbum, quo tum detinebar, mihi adesse non liceret: Sed opera* Johannis Lucæ, *juvenis tonsoris, usa, qui tum, ut etiam nunc,* Bunonii *in parvo pago vicino habitat, qui dextre Incisionem hanc, sibi licet novam, An. 1556. die ipsius Paschatis in multorum præsentia peregit; cujus rei aliqui, imprimis vero ipse, testimonium perhibere possunt. Incisio* (exemplum *hoc* præcepti *loco habeatur,*) *à dextra abdominis parte, transverso digito infra umbilicum, & ultra quatuor digitos ad latus ipsius incipiebat; inde rectà ad pudenda usq; progrediebatur, absq; tamen rectorum Abdominis musculorum læsione; tribus enim digitis supernè a recto*

recto musculo distabat, infernè verò paulo minus. Musculorum, ut & Peritonæi factâ incisione, absq; tamen magna hæmorrhagia, Uterus conspicuus se obtulit, quem etiam separatim incidit, facto satis magno vulnere, quo fœtui viventi, ut & secundinæ, facilis per vulnus pateret exitus. Postea, labia vulneris non Gastroraphia, sed communi vulnerum sutura, quinq; punctis consuit, non quidem uterum, sed musculos & peritonæum; uti ipsemet observari, dum ejus solùm rei gratia, cum convaluissem, ipsam inviserem. Sed postbac sæpius in ipsa id commodè observavi, dum berniam percurare conarer, quam deinceps semper habuit, vel ob futuram minus recte adhibitam, vel quod minus diu in puerperio remansisset; quadraginta enim solum diebus lecto se continuerat. Sesquianno autem post, priori marito defuncto, cum Petro Chanclan nupsisset, qui etiamnum superstes, rursus concepit, & feliciter naturali modo filiam enixa est, quæ etiam secundas nup-

tias contraxit, & Nangevillæ *habitat*; *quo loci plures adhuc hodierna die fide dignos hujus rei teſtes eſt reperire.*

There are alſo two Chirurgions of our Town, who do atteſt, that this *Cæſarean Operation* was performed in their time in *France*, of which both women did happily recover; as you may ſee by their own atteſtation here ſubjoined.

Maſter Anthony Gloriand.

I do hereby certify what I ſaw An. 1630. *when I ſerved Monſieur* la Serre, *ſworn Maſter Chirurgion of the Town of* Calais, *that my Maſter was ſent for to deliver the Wife of Monſieur* Purot; *but finding ſuch a tumor between the part and the conduit of the* matrix, *that he could not make uſe of inſtruments, nor of his hand, reſolved, to ſave the child and the mother, to uſe the* Cæſarean Inciſion; *which he did accordingly in the preſence of Monſieur* de Gout du Pin, *Phyſitian of the ſaid Town; in which operation the ſaid* La Serre *did*

ſucceed

ſucceed very well; for both Mother and Child remained alive for ſome time.

To this I ſhall add another Example, recited by Mr. *John Girault*, ſworn and very famous Chirurgion at *Paris*, in the 74 *ch.* of his *Annotations* upon the French Chirurgery of *Jacques Dalechamp*, Doctor of Phyſick, and Profeſſor at *Lyons*, concerning an happy Cure, by which both Mother and Child were preſerved by the *Cæſarean Cutt*; viz.

The 12*th. of May* 1628. *Madam* Mary des Auxnaix, *Wife of* the *Sieur* Jacques Jouän, *Sadler in the Town of* Loudun *in* Poictou, *was happily brought to bed of a Son, the third time, by the* Cæſarean Section, *and that by the induſtry and dexterity of that very Expert Maſter* Jacques, *Maſter Chirurgion of the ſaid Town, and great Operator and Lithotomiſt, for this art was at that time very well known through all* France. *And, which is more, I have been credibly informed, that the ſaid Maſter*

Jacques *had ſince delivered the ſaid Dame by the ſame Cæſarean operation four times, ſince that which* I *have mention'd; which makes* ſeven *in all; but that ſhe died of the laſt.*

Your affectionate Collegue
and Friend
Pierre Guenellon.

Having thus diſcourſed, on what occaſion the *Cæſarean Inciſion is* practicable, uſual and neceſſary, and proved the uſe thereof by divers commendable Examples, as alſo well conſidered the reaſon of the ſame; it will be proper, further to examine, when there is a neceſſity, not only after what manner this operation is to be performed, but alſo in what parts of the body; and laſtly to conſider, what danger or inconvenience may be expected therefrom.

It will then be neceſſary firſt of all to examine the Anatomy of the *Containing* parts of the belly, and particularly that of the Womb. Of this may be conſulted *Adrianus Spigelius*,

and

and other Anatomiſts. See *Fig.* 2; in which,

AAAA, are the ſeparated comon Integuments of the *Abdomen.*

MMM, The white Line.

O, The Navel.

BBBB, The Line called *Semilunar* by *Spigelius*, where about the tendons of the oblique Muſcles of the *abdomen* take their beginning.

EE, The obliquely aſcending muſcle in its place, whoſe fibers run upwards.

DD, The ſpine of the *Os iſchium.*

The Common Integuments then, that muſt be cut thorough in this Operation, are the upper skin, the skin, the fat, the fleſhy membrane, and the muſcles of the belly: The innermoſt and laſt tegument of the *Containing* parts is the *Peritonæum*, inveſting all the Bowels of the lowermoſt *venter.*

Of the *Contained* parts of the Belly none is cut but the Womb, to fetch out the Fruit and Secondine.

That the *Containing* parts of the belly being wounded, although it

ſhould happen that a good part of the bowels did ſhoot out, (they being unhurt,) may without any great danger be healed, is ſo notorious, and ſo well known by daily experience, that I think it ſuperfluous to enlarge upon it; concluding with the words of *Galen*: *Mediocré foramen anguſtiori ſalubrius eſſe, ut libere intrudantur inteſtina.*

Nor need you apprehend any great hæmorrhagie in the cutting of theſe muſcles, in regard that in the place, where the Inciſion is made, there run few or no great veins or arteries. Nor need you be concerned, what will become of the extravaſated blood; for it may be conveniently diſcharged by the opening of the Womb. Nor is there cauſe to fear any *Convulſions*, ſeeing that the opening is made in the midſt of the right muſcle, and not in its beginning or end; for in the middle of it there are none of the ſmall nervous fibers. Nor need you be afraid of the largeneſs of the wound to be made in the Womb, becauſe

upon

upon the Extraction of the Fruit ſhe is immediately (according to her nature) drawn in again; whereupon the wound is ſoon healed, the circumjacent parts much contributing thereto: For the effuſion of blood of the Womb is not more in this way of Delivery, than in the other that is natural: And in caſe it ſhould happen to be too great, it may eaſily be remedied by convenient and known means, both for ſtopping the flux of the blood, and for cleanſing and healing the ſaid wound; always taking great care that nothing remain behind that ſhould be brought away.

But that after the cure of theſe wounds, by the cutting of the *Omaſum* there commonly follows an *Hernia* or Rupture, that cannot well be cured, is a thing that muſt be patiently endured, and eaſed by ſuch bands as are uſual in that caſe; conſidering, that this is a ſmall inconvenience in reſpect of ſo great and difficult an operation; without which neither the Mother nor the Child

could possibly be saved alive, And we know, that in Cutting people of the Stone, the wounding of the Bladder is much more dangerous, troublesome and grievous; which saves but one body: whereas in our operation two are preserved, which else must be infallibly lost.

Moreover, it sometimes happens, that this operation must be performed near the Navel, which is a more dangerous place than that where usually the *Sectio Cæsarea* is made. And in that case the Dead Fruit, and the putrified bones thereof have sometimes been extracted, and yet the Mother recover'd; witness *Stephanus Marialdus* of *Bourdeaux* in *sua Historia de Partu prodigioso, qui visus est in agro Bardiniano* near *Bourdeaux*, An. 1595. which operation was performed by that very expert Chirurgion *Jacobus Noierus*.

The like happened also in my time, when I was learning the practise of the Art of Chirurgery that a pu-

a putrified Fruit was, by Nature's co-operation, extracted out of the right Gut.

Albucasis an Eminent Physitian and Chirurgion among the *Arabians* relates, *c.* 76. an odd case, which I cannot forbear to transcribe hither. *I have*, saith he, *seen a woman, in whose belly was a child, and she was then got with child again. And this second Fruit dyed likewise. After a considerable time she had swelling at her navel, which rising more and more, at last burst, and yielded purulent matter. Being called to her, I was long employed in that cure; I laid at length a strong Drawing plaister over the place, whereby it was so open'd, that one day there came forth a bone, and some days after, another. I was amased, knowing there were no bones there: But well considering all, I found, that they were bones of a dead child. Having therefore learned the true Cause of the disease, and consequently the right way of the Cure thereof, I extracted many more*

bones

bones from thence; whereupon the woman did pretty well recover, and lived a good while after; though out of the opening there run alwaies some matter.

Franciscus Rosetus recites three examples more of this nature, which *Ambrosius Paræus* hath taken notice of in his 24th *Book of Generation.*

Fabritius Hildanus relates a strange example of a *Burgundian* woman, about whose Navel there was cut out a putrified child, An. 1609 by Mr. *John Marchandet*, Chirurgion at *Salines*.

Alexander Benedictus, Chirurgion of *Berne* in *Helvetia* relates in his 25th *Book, ch.* 33. such an other remarkable case of a *Venetian* woman, which having been deliver'd of a perfect child, there remain'd another child in her Womb, which was dead; which coming to be putrified, was for the most part expelled the natural way; but at length Nature making three openings of her belly,

there

there came forth out of the biggeſt of the three the whole skull of the dead Fruit; and after that the other bones came forth from time to time. Whereupon the woman by admirable help of Nature recover'd.

A. 1663, the 10 th. of *February*, there was ſent me from *Brugges* in *Flanders*, by an intimate and veracious friend, a Note concerning a very experienced Phyſitian called Dr. *Scnnius*, who had performed this *Cæſarean* operation ſeven times upon his own Wife, with very good ſucceſs, both Mother and children remaining alive.

Whence appears ſufficiently both the practicableneſs and great uſefulneſs of this Inciſion for ſaving of lives, notwithſtanding the difficulty and danger which accompanies it: concerning which that ſaying of *Hippocrates* muſt take place; *viz. Extremis morbis extrema & periculoſa remedia ſunt adhibenda.*

Yet *Ambroſius Paræus*, a known Author, and *Jacques Guillemeau*, are of

of opinion, that this difficult Operation ought not to be uſed, as you may perceive by their own words; becauſe they twice miſcarried therein, and beſides, knew *three* other women, that alſo died under the ſame. Let this be ſo; the *five* children mean time were preſerved, which was no ſmall matter. But hear what he ſaith himſelf.

Some are of opinion, that ſuch a Cæſarean Section *may and ought to be practiſed (the woman being alive) in caſe of an highly difficult Travel: which I cannot adviſe to, having twice tried it in the preſence of Monſieur* Paré, *and ſeen it practiſed by Meſſieurs* Viart, Brunet, Carbonet, *very expert Chirurgions, who left nothing undone that could be done by dextrous and methodical Maſters: Yet notwithſtanding, of* five *women upon which this Operation was made, not one eſcaped. I know, it may be ſaid, that ſome have been ſaved that way. But ſuppoſe that to be ſo, the*

Opera-

Operation is rather to be admired than imitated. One Swallow makes no Spring, nor one Experiment a Science.

The Preparatives requisite to this operation are, as follows : The Mother and the child being yet both alive, if I should be called to such an Operation, I should first of all consider all circumstances, to conclude, whether this Incision were necessary, and whether neither the woman nor her Fruit could escape death without it, and whether they had not endured too much by some imprudent or unskilful Midwives, nor the Mothers body too much hurt by their ill management : For, if a woman should chance to die after such an Operation, then the Operator would be blamed, although their former indiscretion and ignorance were the cause of her death. Having then well considered and examined the strength of the woman, and prepar'd all necessaries for the Operation, *viz.* an Emollient Clyster to discharge the bowels,

bowels, and a good cordial to fortifie the Woman, (I mean a glaſs of good Wine ;) as alſo having taken care that ſhe make water for the emptying of her Bladder, and then having ready a very good Raſor, and another good cutting knife ; a pen with Printers Ink to mark the line of the Inciſion, (which line muſt firſt be dried up ;) four or five needles with three-angled points, ſtringed with waſhed red-ſcarlet ſilk, and three or four ſilver needles(ſuch as are uſed in the cure of a Hares-mouth,) likewiſe ſtringed with ſilk ; three ſoft ſponges ; ſeveral doubled compreſſes of ſoft napkin-cloth, and a napkin doubled up four fold, to be put round about the belly after the wound is done up ; beſides, two broad ſwathes, each 6 inches broad, to wind about the belly for ſtopping the blood, and above all, a ſtrengthning and ſanative remedy, wherewith the wound is firſt to be cleanſed and waſhed, before it be ſtitched together : To which is to be added a proper Blood-ſtanch-

ing

ing remedy, wherein there is to be no vitriol nor any other corrosive ingredient, for that would hinder the coalition of the wound: lastly, a good wound-balsom to anoint and bind up the wound with.

The means which I would chuse to perform this cure with, as to the stanching of blood, and cleansing the wound, are the following: First for cleansing;

℞. *Rad. Consol. major, Sassaperil. ana* ℥ß. *Herb. Agrimoniæ, Altheæ, Artemisiæ, Rorismar. ana m. j. Flor. Meliloti, Lavendulæ, Rosarum rubrarum ana m.* ß. *Sem. Anisi, Fœnic. ana* ʒij. *Castorei* ʒi. *Fiat omnium decoctio in vino rubro, usq; ad tertiæ partis consumptionem.*

Then, for Blood-stopping;

℞. *Farinæ Volatilis* ℥iß. *Boli armeni* ℥ß, *Gypsi* ʒij. *Resinæ, Olibani ana* ℥i ß. *Sang. Dracon.* ʒi. *Omnia subtilissimé pulverisentur & misceantur.*

Lastly, for a Wound-balsom;

℞. *Ol. Olivarum lib.* ß. *Terebinth.*

℥iij.

℥iij. *Rad. consolidæ major. Tormentil. an.* ʒij. *Herb, Trifol. odorat. m. j. Flor. roris mar. Centaurii an. m.* ß. *Hyperici m. j* ß. *Croci* ʒj. *Contundantur simul cum oleo, vitro includantur, & calore solis per* 40. *dies digerantur; postea exprimatur liquor, & servetur in usum.*

Those that cannot get *this* Wound-balsom made, may safely use the oil of *Hypericum*, with the oil of *Copiva*, and equal parts.

All this Apparatus being at hand, I should then perform this Operation in the manner following;

First of all, having implored God Almighty's blessing, I should desire the Patient to lie upon her back, near the edge of the bed, for the more convenient access to her, getting two strong persons to hold her and to keep her leggs close together, and laying a great pillow under her head; then I should pitch upon that side of the belly, right or left, which I thought the soundest, taking care not to meddle with that side which may be affected by some di-

diſtemper of the ſpleen or liver: Yet if there ſhould be ſome rupture on one ſide already, in that caſe *Celſus* and *Paulus Ægineta* do adviſe to make the opening in that place where ſuch a rupture is,. becauſe they would not have the Patient eudure ſo much pain, as he needs muſt in the difficult healing up of two ruptures. This done, I ſhould with Ink mark along the belly the line of the Inciſion, to the length of half a foot, which is the ordinary bigneſs of the wound requiſite in this operation; and the traverſe lines drawn over the ſtreight line, ſerve only for this end, that in the ſowing up no miſtake may be committed, foraſmuch as the croſs lines muſt exactly correſpond with one another. See *Fig.* 3. where

A, the Navel.

BB, the Direct Line of the Cæſarean Inciſion, half a foot long.

CCCC, the Tranſverſe lines, drawn over the direct line.

But all theſe Circunſtances need not when the Mother is dead, and

the child ſuppoſed to be yet a live. For, in this caſe, I only chuſe that place which I judg to be moſt convenient and ſafe for delivering the child and the after-birth with moſt ſpeed.

To proceed then; having pitch'd upon the place, between the Navel and the *Os pubis*, going two or three inches beneath and on the ſide of the Navel, and as much from the lower part, to avoid rhe tendinouſneſs of the Muſcle, I ſhould then make the Opening according to the length of the belly, firſt cutting the belly quite through with a raſor into the very fat, and making the wound ſo big as is requiſite, conſidering both the condition of the child and the Mother; and then advancing further, and cutting through the Muſcles of the belly, and the *Peritonæum*, underneath of which the Womb will preſently appear, which is then to be open'd in the middle with great caution, that ſo the Fruit and the appendages thereof may not be wounded. The opening being thus made,

the

the child and the after-birth, with the Navel-ſtring, is to be dextrouſly taken out; and in caſe the child ſhould be perceived to be faint, the After-birth is to be ſprinkled with warm wine, and to be laid thus warm upon the child's belly to renew its ſtrength. Yet, in caſe both Mother and child be alive, I ſhould let alone the ſeparation of the child till the Mother were dreſſed, or have a Midwife ready at hand, to take care of the child. Then immediately waſhing the Womb, both to ſtop the bleeding, and to cleanſe the ſame with my above-preſcribed lavement; I ſhould inſtantly proceed to ſtitch up the wound, not after the manner of the *Gaſtroraphia*, in which you take up by turns as well the ſubjacent *peritonæum* as the upper ſkin, but after the way of ſtitching up an *Hare-mouth*; and this I ſhould endeavour to heal up *per primam intentionem Chirurgiæ*, which is performed by that way of ſtitching, and the wound Oyl. But I ſhould alwaies with a tent keep open

a little place in the lower part of the wound, until the great danger and the usual Symptoms were past; and for the rest, employ such healing means, as are usual in other fresh wounds of the belly.

But as to the *Womb*, which is not to be stitch'd together, the healing thereof is to be further'd by convenient syringing, such as may not at first hinder the *Lochia*: But as to *pessaries*, they, in my opinion, can do no good in this case; because they cannot convey the healing remedies so deep as is the place of the Womb (which syringes can do,) forasmuch as the opening of the *Uterus* is made in its upper part. If the *pessaries* be wrapp'd about with fine linnen rags, or with thin sheeps-gutts, they are the worse for that, to give any help; if they be not, they presently melt, and hinder also the passage for the purification: Whereas by syringing, the pain is mitigated, and inflammation prevented: Besides, that by the use of Syringes, the Womb

is

is as 'twere bathed, warmed and ſtrengthen'd; and by it alſo the ſuperfluous *Sordes* are expelled.

Concerning the *Diet* of the Patient, that ſhould be of light and nouriſhing meat, I mean, good broath of chicken, pullets, or mutton, ſoft yolks of Eggs, and the like; in ſhort, ſuch as is uſual in great ulcerations and wounds of the lower belly: Taking alwaies great care, that ſhe be not too coſtive; in which caſe ſhe muſt be relieved by ſome emollient Clyſter.

From this way of proceeding, *Honor'd Friend*, you may judg of thoſe ſad examples, which are daily before our eyes, of thoſe child-bearing women, which not only themſelves alone, but together with their Innocent Fruit, are miſerably deſtroyed. Which affirmation of mine is confirmed by that famous Chirurgion, *Guilielmus Fabritius Hildanus*, in a place where he mentions what the Royal Law imports, ſaying: *The Royal Law forbids to bury a woman that is deceaſed with a big belly, before the*

Fruit be cut out. And the learn'd in the Law call this the Royal Law, *not only by way of excellency, but alſo becauſe 'tis eſteem'd, that the ſecond King of the Romans,* Numa Pompilius, *enacted it. Certainly, if this Law were obſerv'd every where, many children, which now by the death of their Mothers are miſerably ſuffocated and loſt, might be ſaved, to the great comfort of their Fathers. 'Tis not in vain, that the Author of this Law adds: Thoſe that do otherwiſe, ſeem to have killed the hope of life with the Fruit.*

But then, though this *Royal Law* commands to open all big-bellied women, without any diſtinction, as ſoon as they are deceaſed; yet a Chirurgion is not ſo ſtrictly tied to it, as to obey it in all of them; becauſe there may be manifeſt and palpable cauſes to let it a lone. Firſt, when he is ſure that the child is dead, and that there is but one child. 2. That the Fruit is putrified and diſſolved. 3. That there hath gone before a great flux

of

of blood, together with the breaking of the waters, and that the Womb is discharged, and keeps only the Fruit being without any motion; or when the Fruit is but very little, and come to no maturity. Which last was a case that I my self lately met with, having been called to a *French* woman dwelling upon the *Keysers-gracht* in *Amsterdam*, to perform this operation. For, this woman had so extremely flooded both of blood and water, that she had voided (as she her self assured me) near a pail-full. Finding her pulse very low and faint, and the flux continuing, though not so violent, I bid the Midwife to keep her hand continually upon the Patient's belly, and to be very attentive, whether she could perceive the least motion. But neither before the Mothers death, nor at her death, was there any motion; and being deceased, I found the Fruit so little, and without all motion, that I affirmed it was dead, and very im-

perfect, and therefore needleſs to trouble our ſelves with this operation.

Theſe, Sir, are the Obſervations and Practiſes of the *Sectio Cæſarea*, which I preſume to preſent unto you; begging your pardon for my prolixity, and ſubmitting all to your cenſure and correction. Given in *Amſterdam* the 10th of *September* 1662.

THE

The Second

Historical Observation

OF THE

PROCIDENTIA VAGINÆ UTERI,

Or The

Falling Down of the WOMB:

Together with a Case of its

EXTIRPATION.

ADDRESSED

In a Letter to the Learned PAULUS BARBETTE, *Doctor of Physick, and Practicioner in* Amsterdam.

Sir,

PUrposing to give you a visit by a Letter, I could not forbear to communicate to you some cases which I thought worth observing; *viz.*

An. 1658. the 24th of *December*, I was sent for, to come to the house of one *Thomas Carstens*, Souldier under Captain *Rufus*, living upon the *Princen-gracht*, over against the North Church, in the *Prince's Hof-gangh*; where I was to view the said Soul-

Souldiers wife, call'd *Mary Jacobs*, who had been troubled for *four* years with a *Falling down* of the *Vagina uteri*, which a certain Midwife had dreſſed for two whole years as if the *Womb* it ſelf had been fallen out, endeavouring to cure it by replacing the ſame by a ring of *cork*, one inch thick, and three inches broad round about, having a hole in the midſt, of the bigneſs that a finger might go through : This ring being dipped in melted yellow wax, and by the Midwife applied about the part, was there kept a great while, till ſhe found that ſhe was not cured. Whereupon the Patient employed another Midwife, who undertook to reduce the fallen womb into its place by a Ball of white wax; but this proved more ſucceſleſs than the former, the part hanging out to the bigneſs of a pint glaſs, of that ſort which we call *Romers*. Nor can I think the putting ſuch a ball as this into the body, ſo good as the ring before ſpoken of; for by means of the hole

in the Ring, the Patient could have her *Lochia* paſs, which were quite obſtructed by the Ball.

The like Example I have met with in a Woman living upon the *Herengracht*, whoſe Womb, as ſhe thought, had alſo been replacing by ſuch Wax-balls; but this prov'd alſo unhappy. For I was at laſt ſent for, to deliver her of her miſery, which I alſo did, though with no ſmall trouble. For this piece was as big as a mans fiſt, and having obſtructed her *lochia*, cauſed great pain, a fever, ſtench and putrefaction; though, by God's bleſſing, ſhe was delivered of this child of Wax.

The like troubleſome Symptoms befel the former woman, *viz.* great pains in her loins, *inguen*, and body, inſomuch, that ſhe could not lie on either of her ſides, nor upon her back; neither could ſhe ſit up but with almoſt intolerable pain for ſeventeen weeks together, until her body burſt open, rendring a ſtore of fetid matter, and forcing out the Wax-ball, blacken'd

blacken'd with the ugly ſtinking matter, together with the *vagina uteri*, (which they took for the *uterus* it ſelf) being much contuſed and hurt, ſome places thereof being alſo eaten out by the ſaid matter, there appearing two bruiſed places where the ball had preſſed; which yet were happily cured by the Midwife.

Some time after, another woman undertook to cure her with another Ring made of Cork, and dipt in melted wax, as had been employed by the firſt Midwife. Which Ring being applied again, the Patient had eaſe and reſt for five or ſix months; until at laſt by ſome ſtrong motion or other, the *vagina* came to fall down again in ſuch a manner, that it began to mortify and gangrene. The Doctreſs being ſent for, and ſeeing how the caſe ſtood, laboured to pull to her the Ring, which was faſt wedged in; but not being able to effect it, ſhe made bold with her finger to pull it out piece-meal: Whereupon the part falling down, ſhe laid a pap upon it, by

which

which it fell out more than ever before, and beginning to be inflamed and to gangrene below, ſhe did her beſt to put it up again by linnen-rags warm'd in Brandy, which ſhe continued to do for three days together. But the woman finding this remedy altogether uſeleſs, bid the Husband of the Patient to go to the old mans Hoſpital, and thence to fetch ſome of thoſe mens ſtrongeſt Urine, and to boyl it up with Roſemary, and therewith to bath her body. Which was done; but the Midwife never appear'd again; and the propendent part changed more and more its coulour, ſo that now they were neceſſitated to look about for other help; which was, that they ſent for two other Midwives, who being come, did their utmoſt to put the part again into its place; but when they had beſtirr'd themſelves fruitleſly for the ſpace of three hours, at laſt they ſent for me; who being come, found the woman in the condition above-deſcribed; whereupon I preſently adviſed, that the next

and

and beſt way of ſaving this woman, was to ſever this prominent part, vulgarly ſuppoſed to be the Womb. This was the ſame day put in execution, when I put this woman upon a Table, for the more convenient operation, in the preſence of the learned and expert *Arnoldus Tholinx*, and *Job van Meeckeren*; and went thus to work: Firſt of all I drew the propendent part to me as conveniently as I could, that ſo I might be the better able to lay a linnen tape about the part, and to draw it cloſe together, for fear of flooding that might enſue: Which done, the Extirpation follow'd, with little effuſion of blood; whereupon I dreſſed the body according to Art, and cleanſed it with due remedies, ſuch as reſiſt putrefaction and ſtench: For example;

℞. *Rad. Altheæ*
Brioniæ, ana ℥ß.
Fol. Artemis.
Abſynth.
Rutæ,

Lauri,

Lauri ana m. ß.
Flor Rosar. rubrar.
Lavend, ana ℈iij.
Coquantur s. a. in vino Rhenano, & colentur. Adde.
Ung. de apio ℥jß.
Melchelidoniæ ℥j.
Misce, fiat unctio.

By which means this woman was at length happily cured, having after that, for some time, her natural lochia : And she did live still in good health, at the time of my writing this Observation, *viz.* the 28th. of *August*, 1662.

Sir, that this was a sinking and falling down of the innermost rugous tunique of the *vagina uteri*, is evident from these reasons ;

First, because the Midwives, having handled this part much, and a long time, found it always to be in colour and smoothness like to the neck of the *uterus*, and not to the body of it.

Secondly, because it could be so easily restrain'd and kept in by a single

gle Ring, as we described above, which the Womb it self would have thrust out in such a length of time. Besides other reasons, to be met with hereafter.

The Causes of this sinking are internal and external. The *Internal* are, the grievous throws of the matrix; as when in time of travel the child is well turn'd, but the childs Head is bigger than ordinary, it comes to pass in such a violent labour, that the *vagina uteri* is so press'd and urged, that the *rugæ* within are turn'd and stretcht over one another, and remov'd from the place to which they were grown. For, this I have much wondred at, almost in all deliveries where I have been present, that the *rugæ uteri* are so great a help to the *uterus* in bringing the child into the world, and, which is more, that the Womb can exercise so great a force by means of the same. For these *rugæ* being in a natural or ordinary delivery, well moistened with a lubricous water, do by their inbred force

great-

greatly promote and further the iſſue of the fruit : As you ſee in Silk-worms, by example; who in their progreſſive motion firſt of all do fix their feet, but then by their rugoſities and inciſures advance, and are, as 'twere , propelled , juſt as one wave drives forward another.

Now when this happens in an unhealthy body, then ſtore of ſlimy, wateriſh, or other ſuch like humors come to flow into it, whereby it ſinks more and more, and at length is ſo enlarged and expanded, that by reaſon of its bigneſs it comes to be prominent out of the body.

As to *external* cauſes, it may be occaſioned by the inconſiderate gripe of a Midwife, who, in ſtead of drawing to her the child or the after-birth, comes to lay hold on theſe *rugæ*, and to draw them to her, thereby cauſing the *vagina* to receed from its ſubjacents parts, and to ſink down,

Concerning the cauſes that are rendred by other Authors, I can hardly aſſent to them; ſuch as are hard labour,

ſtrong ou cry, vehement cough, the breaking and ſeparation of the teguments of the Womb, a vain endeavor to go to ſtool, falls and blows and knocks upon the belly, violent riding on horſe-back, ſneeſing, danſing, leaping with ſpread-out legs, holding in ones breath, taking great cold. All which cauſes are not ſatisfactory to me to make me believe the procidence of the Womb, when I conſider the ſtrong union of the ſame with other parts; though I deny not, that ſuch violent motions are very hurtful to thoſe that are troubled with this accident.

Of this extirpation of the womb, divers conſiderable Authors have written; and, which is more, divers women have lived a long time in good health *without* a Womb, if you will give credit to *Paulus Ægineta*, *Foreſtus*, *Zacutus*; who alſo affirm to have ſeen, that a prominent putrified womb was cut off. See hereof *Carpus*, *Mercurialis*, *Lazarus Riverius*, *Johannes Langius*, *Paræus*, *Bauhinus*, and others. And

And if you pleaſe to look upon the third Book of *Felix Platerus*, *de uteri procidentia, corruptione & ablatione*; you will there find a ſtrange relation of a woman, whoſe whole *uterus* hung out; which when it was altogether black, putrified and ſtinking, there was ſent for an old experienced Chirurgion, who when he came to touch with his hand the prominent womb, it inſtantly like glue ſtuck faſt to it, without uſing any other ſence to draw it to him.

But narrowly examining the matter, I cannot believe, that the womb it ſelf can ever come to be prominent, as vulgar Authors tells us, that in ſevering the child from the after-birth the Womb hath fallen down with it. I am rather perſwaded, that ſuch Writers have open'd very few women that have died in travel. For, if ever they had taken good notice of the bigneſs and thickneſs of the Womb, they would never have written as they have done. I, who have frequently met with this caſe, ſhall

relate to you one of them at preſent, which hapen'd two years ſince, of a woman, that not an hour after her delivery had her *vagina uteri* ſhot out to the bigneſs of a childs head; which in the preſence of two Midwives I reſtored to its place. If this had been the womb it ſelf, I could never have ſo eaſily reduced it: For, the Womb in ſuch a Young child-bearing women, as this was, muſt be an inch and a half thick, ſeing that 'tis ordinarily in a healthy woman with child two inches thick, according to the condition of the Fruit; for, the bigger the *fætus* is, and the longer the Mother hath gone with it, the thicker groweth the womb; which is obſervable. Whence we may eaſily collect, that ſuch parts which in length of time have increaſed in thickneſs, cannot ſo ſuddenly come to be leſſen'd.

The other ſign I took notice of on this occaſion, was, that the womb muſt have been inverted before it could come out of the body; and

if

if ſo, I muſt have found it bloody, uneven, thick and ſpongious : But I found it contrary, *viz.* very ſmooth and even. And her *lochia* ceaſed almoſt quite, ſo that I was very well able to judg of this matter, as I have alſo been of all others, that ever I ſaw.

Now, as we have formerly ſhew'd, that 'tis a lazy nature to rely upon old things alone ; ſo 'tis a raſh one, to give credit to groundleſs and ridiculous noveſties. For example ; That the Mother (as they call it) gets into the throat of married women and Maids, is by thouſands believed to be a truth ; yea , that the ſtring of the Mother is faſt in the throat, and, that the vein of the Mother is alſo ſeated there, which fancy is craftily managed by a certain woman in this Town, who thereby miſerably deceives many innocent women, and marvellouſly enriches her ſelf.

Yea the Mother can alſo (ſay they) in ſome women be tranſlated into other parts of the body.

Of which I cannot but relate here a pleaſant ſtory, of a woman that not long ſince was troubled with a hardneſs in the left ſide of her belly ; who by a ſudden cough falling a vomiting, was made to believe, that ſhe had vomited up her Mother or Womb,which being put upon a Table, was in roundneſs as big as an ordinary woodden Table-trencher, with a mouth in it, as they would have it ; which yet did not ſtir but when they threw a little ſugar into it ; and then it gaped, they ſaid. This might be believed, if that other were true, which is ſaid and recorded, *viz.* that a woman may conceive and form a *fætus* without the womb, to wit, in her ſtomach, and in other parts of her body. Of which we read ſome examples in divers Authors; one of which is to be found in the *Anatomia reformata* of *Thomas Bartholin. l.* 1. *de infimo ventre.* where he ſaith ; *Extra uterum factam conceptionem & fœtus formationem, exempla nonnulla teſtantur.* In ventriculo *junioris*

nioris uxoris cujuſdam ſutoris nefandi, conceptum fœtum, & per os excluſum, digiti longitudine, ſed bene omnibus membris externis & internis conformatum, deſcripſit ex literis Romeleri *ad* Gothofredum Hofmannum Salmuth, *nec de fide hiſtoriæ ipſius dubitat.*

I find alſo many ſimple Midwives who on the ninth day after a womans delivery enjoyn her very ſtrictly to lie ſtill on her left ſide; by which means they pretend, that the Mother or womb comes to return to her right place. To refute which ſilly fancies, it will be ſufficient to conſider the ſtrong union of the Womb with the other parts of the body; whereby it appears, both that 'tis impoſible, the Womb ſhould ſhoot out, and that the Mother ſhould riſe into the throat, or be the ſubject of an extirpation.

We do not think it convenient now, to write of the riſing of the Mother, hoping we ſhall have a better opportunity to diſcourſe thereof.

I ſhall only ſay at preſent, that I am of opinion, that the womb cannot change place, no not ſo far as to get to the ſtomach, or the dyaphragme, except in thoſe that are hydropical, or have a *mola carnea*, or that are big with child, in whom the ſtomach by the great ſwelling is little by little preſſed; whereby frequent reachings to vomit, and actual vomitions, and other indiſpoſitions and illneſs are occaſioned. For, if the ligaments and veins of the Womb ſhould come to be ſo much relaxed by the ſuperfluous moiſty humors, as to be thereby inverted, and ſo to ſhoot out of the body; it were then alſo very credible, that theſe ligaments could be as well ſtretched out in the riſing of the Mother, as in its ſinking down: Which is not to be believed. But it may very well come to paſs, that the womb being charged with foul blood and ſtale ſeed, from whence ariſe foul and ill-condition'd damps, theſe damps do ſwell the bowels, and occaſion ſome riſing, whereby

whereby the Patient can breath either not at all, or with great difficulty; which maketh women think from the ſwelling of the muſcles of the throat, that they are in danger of ſuffocation. Where you may take notice, that Maids and Widows are moſt troubled therewith, and married Women leaſt; a good Husband being the beſt remedy for this diſtemper; as is intimated by *John van Beverwyck* in his third Book, *ch.* 6.

If it were poſſible that the Mother could ſhoot out, it would indeed be a very difficult and dangerous work to ſeparate it; for ſhe is by its broad and round ligaments very firmly united to the bones, ſo that they could not be ſever'd from them but with very great pain; beſides, that ſhe is ſo faſtned to the Bladder and the *inteſtinum rectum*, that they cannot but with great danger and miſchief be ſeparated. Hence that old ſaying;

Quid ergo ſuperbimus, qui inter ſtercus & urinam naſcimur.

The

The *Vaſa præparantia* and *ſemi-naria* are inſerted in the womb and the *vulva* ſo, that they cannot but with great pain, and much effuſion of blood be diſunited: Whereas I find in my practice, that in as many as I have met with, that prominent part, miſtaken for the Mother, may be replaced with eaſe, and therefore am perſwaded, it is nothing elſe but a procidence or relaxation of the *Vagina*. For Women that are troubled therewith, are ſometimes with child, as I have found it divers times, inſomuch that in delivering ſome Women, I have been often warned to be very cautious, by reaſon forſooth, that the Mother was prominent; the meaning hereof being, that the Midwife would be as able to deliver ſuch a woman as I, were it not that the Mother did hang out of her body. But would not this be an admirable delivery of a child, where the Womb ſhould be prominent out of the belly?

I know alſo ſeveral Women, in whom, when they were the ſecond

time

time with child, this infirmity did firſt diſcover it ſelf in them at the time of child-bearing.

And this relaxation of the *vagina* is ſometimes ſo great, that it terrifies. But I make no difficulty to get it taken away by the hand of a dextrous Chirurgion. And the greater it is, the longer and ſlenderer the neck is, and conſequently the ſeparation thereof the more eaſy, without any great effuſion of blood. And as the ſinking down of the *vagina* is ſometimes ſo great, that it comes to hang out of the body; ſo it happens now and then in others, that it ſubſides no further than to the *vulva*, and in ſome not ſo far.

The *Cure* of this Infirmity is not ſo difficult to a good Artiſt, but it may by a dextrous and diſcreet hand be perform'd without conſiderable danger; and it chiefly conſiſts in theſe two things; *firſt*, in replacing the part; and *ſecondly*, in preventing its falling out again. How difficult ſoever the caſe be, it is ſometimes cured

with

with lying ſtill, eſpecially in young and healthy women, in whom the part is not prominent, who have not been long troubled with this infirmity. In which caſe I cure them with this aſtringent and corroborating fomentation, *viz.*

℞ *Rad. conſol. majoris, Rubiæ tinctorum, ana* ʒij.

Iridis, ʒj.

Herb. Matricariæ, Salviæ, Pulegii, ana m. j.

Fol. Querci m. ß.

Glandium ʒjß.

Flor. Roſarum rubrarum, Balauſtiæ, ana m. ß.

Sem. Cumini, Aluminis crudi ana ʒij.

Contundantur, & coquantur in vino rubro ad lib. iij. *Colatura detur uſui adminiſtrato fotu, applicetur Emplaſtrum.*

The body being, after this bathing, kept truſſed up, I lay over the whole belly this following plaiſter done upon dreſſed leather; *viz.*

℞. *Rad. Biſtortæ* ℥iij.

Ligni

Ligni Aloes, Berberis, Santali, citri antheræ, Cinnamomi ana ʒij.

Flor. Camomæli ʒiß.

Thuris, Maſticis, Caſtorei, Galliæ, Moſchatæ, ana ʒj.

Ladani lib. j.

Picis navalis, Reſinæ pini, ana ʒij.

Olei Maſtichini Caſtorei ana lib. ß.

Miſce, fiat emplaſtrum ſecundum artem; uteri imbecillitati ſuccurrit, procidentiam reprimit, fluxuſq; immoderatos ſiſtit.

But in ancient, women, if they have been long troubled with it, 'tis incurable. However it may be rendred tolerable in them, by ſupporting it with a wax-ball, of the bigneſs of a Duck-egg, or bigger, dip't twice or thrice in the melted *emplaſtrum ad rupturas*, preſcribed by *Fernelius*; in which ball muſt be pierced a hole, to diſcharge the *Menſtrua*; through which alſo muſt be thruſt a copper-wire, with a ſtring faſten'd to it, thereby to draw it the more conveniently out of the body again. All

All which, Sir, I submit to your learned judgment, expecting your thoughts hereupon. Dat. *Amsterdam* the 8th of *August* 1662.

THE

The Third

Historical Observation

Concerning

The CLAUSURA UTERI,

Or The

WOMB SHUT-UP.

Together with

The Signes and Cauſes thereof; as alſo the Manner of Opening and Curing the ſame.

WRITTEN

To the Experienced *Ruardus Rogierſe Beerenart*, Chirurgion in St. *Anna-Land.*

Worthy Brother,

HAving wiſhed you from my heart a moſt happy new year, I thought it not a miſs, for the improvement of our Art of Chirurgery, to impart unto you an Hiſtorical Obſervation of a *Cloſed Womb*. The be-beginning of this year puts me in mind of that excellent Aphoriſm of *Hippocrates*, ſaying, *Vita brevis, Ars longa,*

longa, Occaſio præceps, Experientia fallax, Iudicium difficile.

For, what knowledg I have of this caſe by ſearch and experience, and by the reading and examining thoſe Authors that have written of the ſame, gives me no ſufficient information concerning all the particulars I have noted therein. Some treating of the *Womb*, uſe only the general name of the womb, without making any diſtinction of its parts. Others divide it into three parts, the *Bottom*, the *Mouth*, and the *Neck*. Others into two parts only, the *Bottom* and the *Neck*. Whereby ſome miſtakes have been occaſioned; ſome writing of a cloſed womb, by which they underſtand a coalition of the *carunculæ myrtiformes*, which by a membrane in the firſt formation are grown together, ſometimes having commerce with the *clitoris*; as may be ſeen in *Obſerv.* 16. of *Fabritius Hildanus* his third *part*: Where he deſcribes the opening of the cloſed Womb, uſing the name of *Womb*, whereas it

was

was only a membranous Coalition of the fore-part of the Womb, called the *vulva*, according to his own words, ſubjoined as followeth, *Membrana autem illa, undiq; nymphis ſive carunculis cuticularibus adhærebat, quæ, ſuperiori ſuâ parte, foramine exiguo, per quod urina excernebatur, prædita erat.* So, in his *Obſerv.* 67. of the 6*th part*, he ſpeaks of a caſe, where the *Neck* of the womb, after a troubleſome delivery, was grown together; which, from his own words, I muſt underſtand to have been the *vagina*, or ſheath of the Womb; for he ſaith, *That the mouth of the womb could by no art be opened.* Further, the words of *Ariſtotle* in his 4*th Book de Generatione Animalium*, the 4*th chap.* are very obſcure, when he ſaith, *Jam fæminis nonnullis os uteri compreſſum concorporatumq; ab ineunte ætate ad tempus uſq; menſtruorum perſeveravit mox urgentibus menſtruis, doloreq; infeſtante, aliis ſponte diſruptum eſt, aliis diſſectum à medicis; nonnullæ interierunt, cum aut per vim*

diſrumperetur, aut diſrampi non poſſet. Who is it, that can hence underſtand *Ariſtotle*'s meaning, whether he means the true mouth of the Womb, or of the *vulva*? and, whether he ſpeaks *de hymene imperforato*, or of a coalition of the *vagina*? For he ſpeaks of it very ambiguouſly, when he ſaith, *Animalia uteros & vulvas intus omnia habent.*

For theſe and other reaſons, Sir, I could not omit to addreſs unto you what hath occurred to me by diligent obſervation, for the benefit of Chirurgery: Which, to underſtand the better, as alſo, what infirmities are particularly applicable to each part of the Womb, and what are their Cauſes, Signs, and Prognoſticks, and how the cure of each part ought to be performed; I divide the whole Womb into *Four* parts;

The *Firſt*, is the external part, called the *Vulva*.

The *Second*, the *Vagina*, extending it ſelf from the *Vulva* to the inner Orifice of the Womb.

The

The *Third*, the inner Orifice of the Womb, beginning from the end of the *vagina*, and being that ſpace between the *Vagina* and the Womb, by ſome called the *Neck*.

The *Fourth*, the *Womb* it ſelf, which is the Soil of mankind.

He that hath a mind to be more particularly informed of theſe parts, may receive ſatisfaction by reading the Learned *Severus Pinæus de Virginitatis notis, Graviditate, & Partu.*

Of the Firſt Part.

Now that Infirmity, which is called the *Cloſed Vulva*, hindring the acceſs to the *Vagina*, is nothing elſe but a Membranous Coalition of the four carneous *monticuli*, whereby the foreparts of the *vulva* are ſhut up; ſometimes very cloſe, ſometimes having commerce with the *clitoris*, and then impeding the diſcharge of urine: In which caſe I would warn all Midwives, to ſearch and view carefully the parts of any new-born

child, to ſee whether they be as they ſhould be. Which may eaſily be done by well waſhing and cleanſing the child; and when thereupon they find any thing amiſs, or any part cloſed, that ſhould be open, to give notice of it to the Father or the next Relations, that ſo an intelligent Artiſt may be ſent for to cure the defect.

This defect is cauſed ſometimes by the ſuper-abundance of ſeed or food, ſometimes by ſome accident, whereby parts have been thruſt together in the womb.

Concerning the Signs, it may eaſily be perceived by the Eye or Touch, as alſo by the childs making no water. And this is to be well heeded, that ſo the child may be helped by times. Of this caſe I have met with many examples in my practice, which have been happily cured by the ſole dexterity of the hand: Of which I ſhall only alledg one Obſervation, in which the manner of this cure will appear.

An. 1659. the 27th of *September*, I was ſent for to a certain place, to ſee a child of a year old, that could not well

well make water, (though now and then it did ;) for it never came away but drop-wiſe. Here I found the *vulva* overgrown with a tough film, comprehending the *clitoris*, and thus obſtructing the natural paſſage of the Urine ; being alſo united to the four carneous *monticuli* , without any opening left, but a very ſmall one in the loweſt part of the *vulva*, into which I could not but with difficulty get in my ſtilet. The Urine hit againſt the film, and then being beaten back, it run into the *vagina*, and there ſtayed, till by the lately-mentioned ſmall opening it came to leak or drop out. The Parents being inform'd , that the child was born with this defect,and this not to be removed but by art,as alſo that it could be done no otherwiſe but with ſciſſers, or a curve lancet, there being no other more convenient means for its cure ; and it being alſo repreſented to them, that they were not only to conſider the preſent inconvenience of the child in being hindred from

making water, but alſo that which was to come, the child being grown to years of maturity : They ſeeing the great neceſſity of the cure, did agree it ſhould be undertaken immediately ; whereupon the learned *Arnoldus Tholinx* was called to be preſent at the operation, which was performed in manner following :

The child was put in the lap of a ſervant, who held its legs aſunder upwards, (for the caſe was ſuch, that it needed to be opened from beneath upwards, thereby the more ſecurely to free the paſſage from the membranous concretion ;) and after the partition was made with a pair of ſciſſers, I dreſſed as well the upper as the lower edg of the wound with thick flat tents (that they might not eaſily fall out,) anointed with a cooling and skin-making ointment ; in ſtead of which, other Chirurgions, may make uſe of the *unguentum diapompholygos*, *deſiccativum rubrum*, or the like. Here is always care to be had, that in the ſeparation the open-

opening be not made too ſmall; to the end that afterwards there ariſe no new difficulties in a womans delivery. Great caution is alſo to be uſed, not to hurt any part of the Bladder. Laſtly, care is to be taken, that what hath been once parted, may not grow together again.

Of the Second Part.

The *Second* part of the Womb, the *Vagina*, which begins from the parts of the *vulva*, and reaches to the inner orifice of the *uterus*; which part we alſo frequently meet with cloſed up, and over-grown with a tough membrane, yea ſometimes in the very midſt of it grown together (after a hard delivery) by an ulceration; ſometimes alſo thus cloſed, as to have a hole left in rhe middle for the diſcharge of the *menſes*, as alſo for the admiſſion of ſeed: As we ſhall have occaſion to prove by the Example of a Woman that was ingravidated, after ſhe had been hurt in a former

delivery by the bones of the childs head, thruſt one over the other by a too violent compreſſion.

Concerning the *firſt* cloſure in this part, I am perſwaded, that ſome Anatomiſts have taken it for the *hymen*: About which have riſen ſeveral diſpures between ſome famous Anatomiſts, and particularly between *Euſtachius* and *Columbus*; ſome affirming to have ſeen it, others denying it, as *Andreas Laurentius*; ſome maintaining it to be a membranous skin; others, carneous; others, nervous; ſome, cribrous; which others deny: Some eſteem it to be natural, yet in ſome bodies much thicker, harder and tougher than in others: Others, on the contrary, holding it, when found any where, to be unnatural; to which laſt opinion I give my ſuffrage, ſince I could never find it, though I have very attentively looked after it.

However, thoſe that have this defect, are by the Latins call'd *imperforatæ*, or *velatæ*. This hinders,

firſt

firſt of all, the diſcharge of the *Menſtrua*: Secondly, Conception, and if it be not ſuch, as to hinder that, it lets at leaſt the delivery of the child, as I have obſerved in one of my former Obſervations, where I ſpeak of the cauſes, which require the *Cæſarean Section.*

The cauſe hereof is double, natural, or accidental. The natural is, firſt, when a body is born with it, and is cloſed up before with a membranous skin; which may eaſily be removed by a skilful Artiſt. Secondly, when by a difficult and dangerous delivery (which happens moſt in young women deliver'd of their firſt child) the *vulva* is hurt; or when the child, though well turned, is dead; in which caſe, when in ſuch tender bodies no conſiderable throws do follow, and ſo the child remains for ſome days ſticking in the birth, the wrinkles of the ſheath are by that violent preſſure inflamed, and unskinned, and being by the ſharp corners of the skul-bones ſhov'd over one

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another, ſorely wounded : In which caſe, if the Midwife do not well look to that particular, but only take care of cleanſing, it will come to paſs, that theſe parts will be inflamed, mortified, and ulcerated : Which hurt being by the benefit of nature cleanſed, the parts are made capable to be glued and cloſed together by their ſlimy dew and moiſt warmth; whereby then this paſſage is perfectly ſhut up. It may alſo be cauſed by a wound given by ſome inſtrument; as alſo by ſome carneous excreſcence, as happens in the *Lues venerea*, ſometimes alſo there grow hard tumours in that paſſage, which they call *Condylomata*; and theſe do obſtruct the iſſue of the child.

Thoſe then, who in the midſt of this cloſure have a little aperture, do not want the flux of their *menſtrua*; and they may alſo be got with child, though they cannot be deliver'd of a child but by the *Cæſarean* inciſion. Of theſe *Celſus* writes, *lib. 7. cap.* 28. And *Avicenna* ſaith, *Quibus*

bus os uteri concluſum eſt, aut non concipiunt, aut in partu moriuntur; quando ſcil. in eadem membrana eſt foramen perpuſillum, per quod uterus ſemen trahit, ſed infans egredi non poteſt.

The Signs, by which it may be made known, whether they be *imperforatæ* in this part, are, Firſt, when they complain of grievous pains in the lower belly, and in the loins, on that ſide where the broad Ligaments of the womb are connected with the *os ileum*. Secondly, when they have a pale unhealthy colour, and at the time of the new Moon are apt to vomit phlegm mixt with blood, and want their *menſes*. There are ſome who come firſt to know this at the time of their marriage, by the inconvenience they find in the conjugal embraces. But it may alſo be known, if there be cauſe to ſuſpect it, by an expert Chirurgion, or a knowing Midwife, as alſo the manner of proceeding in it.

The Diverſity of it, and the Cure,

ſhall be here treated of in three Obſervations ; to which we ſhall only premiſe this Note, *viz.* That the more this defect is outwards, the more conveniently can it be cured;and, if it be from Nature,it will admit of an eaſier cure , than if by an Accident.

OBSERV. I.

Of a cloſed Vagina, *cauſed by Nature.*

A. N. 1660, I was ſent for by a Midwife , that was with a young woman of 20 years of age, who, with the knowledg and conſent of her Mother, had promiſed marriage to a young man, who ſeem'd to have an intention to recede from the contract. Whereupon the Mother of the young woman expoſtulated with him, and ſaid ; Now you have defloured my daughter, you, like a diſhoneſt man, intend to deſert her. The Midwife, to know whether the young man had reaſon or not, in that

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he pretended to the Mother, her daughter was not as ſhe ſhould be, asked our advice herein. We having declared, that the matter muſt be examined, and the Mother and Daughter have ſubmitted to our advice, gave, upon due ſearch made, this anſwer, That this young woman could never be a wife, *quod eſſet imperforata*, unleſs ſhe would yield to be opened by Art. Whereupon the Mother concluded, it was beſt to let the young man remain unmoleſted until ſhe had reaſon to preſs him further. Now the caſe was found to be this; The whole *ſheath* was perfectly cloſed before with a very tough and thick membrane, which could not poſſibly be removed but by Art. Some days after, I was ſent for, together with the famous Doctor, *Paulus Barbette*; and we were told by the Mother, that ſhe would give way her daughter ſhould be helped by ſuch means as we ſhould judg beſt; Which alſo was put in effect the very next day in manner following.

Foraſmuch as the young woman ſhewed her ſelf reſolute for enduring

this

this operation, I let her remain in her bed, her head lying low, and both her knees on high; putting a couple of cuſhions under her loins, thereby ſomewhat to raiſe her body, that ſo we might the more conveniently put ſome thing under it. Then with our hands holding the parts aſunder, I conveyed, as dextrouſly as I could, my crooked inciſion-knife to the upper end of the membrane, cutting it through downwards, to wit, towards the *inteſtinum rectum*, going in a direct line from the upper to the lower part; becauſe, if I had gone the contrary way, from below upwards, there had been danger of hurting the bladder. This opening was no ſooner made, but there iſſued forth ſtore of a dark bloody matter, to the quantity of near 30 ounces; which we judged to be a foul collection of her *menſtrua*; admiring, how theſe gathered *ſordes* could there lurk ſo long without inflammation, pain, fever, or the like accident. I gueſs, that there were made

made additions from month to month, by little and little, becauſe ſuch a quantity could not be collected in a month or two. And 'twas alſo wonderful, that there was ſo little ſtench; and that the perſon was in good health. The diſcharge continued ſome days after the opening, but not in ſo great quantity: After the opening made, I conveyed a peſſary into it, made of a dryed ſpunge, moiſtned *cum oleo mucaginum* and *maſtichini*. The place being now widned by the ſpunge, I introduced the next day into it a convenient peſſary of yellow wax, moiſtned with oil, putting a thick compreſſe together with a band before her body; not to be undone but for making of water, and for cleanſing the *vagina* by convenient ſyringation. Which was continued until her perfect recovery, attained in a fortnight.

In ſuch a caſe, there may alſo be uſed a hollow pipe of ſilver or lead: But no Artiſt is ſtrictly bound to this or that, but is to uſe things according as he ſees occaſion.

OBSERV. II.

Of a closed Vagina, *caused by a Gangrene.*

IN the year 1659, being sent for by a Midwife, to come to a certain young woman who was inclined to marry, there being a good opportunity presented to her; but had been deluded by the Midwife whom she employed to cure her: I went to her, and understood, *that* all their bathings, anointings, *&c.* had been to no purpose; *that* she had been with child once before, and to hide her self from her acquaintance, had retired her self into that part of our Country, which is called *Waterland*, and stay'd there till she was deliver'd; in which delivery she had for the space of five days endured very hard labour, wherein the child, though well turn'd, died, and the sheath of her Womb was sorely wounded. This soreness of the *Vagina* came from the continual pressing on the *rugæ uteri*, which there

thereby were mortified and gangren'd; and at laſt, the woman having had by the benefit of nature her *lochia*, the remaining ulcerations in healing up grew together, and ſo cauſed a perfect cloſure; whereupon being become *imperforata*, ſhe never had her *menſes* any more. Which was the cauſe that ſhe demanded my help, which I readily afforded her after this manner: I firſt put her in a due poſture; and then having by my ordinary *ſpeculum vaginæ* dilated her body, I did with a crooked Lancet, tied faſt to my fore-finger, open it from the upper part downwards, forth-with inſerting into it a peſſary, to hinder the parts ſever'd from going together again; and I had care (as is always neceſſary) at leaſt ſo much to widen the ſheath, that the woman being in travel might have a convenient paſſage for her child. But behold! this woman ſome time after being unwilling to uſe the peſſary any longer, and confident of her

being well again, contrary to our advice, marrieth her ſelf, and ten months after her marriage falling into labour of a well-turn'd child, could not poſſibly be delivered, becauſe ſhe had ſuffer'd the former ſeparation, which I had made, to joyn too ſoon by the unſeaſonable removing of the peſſary. Which conſtrained me to widen it again in this labour before ſhe could be deliver'd: But by the fever which ſurven'd, as alſo her pain, and other Accidents, which ſhe had endur'd by her long labour, her ſtrength was weaken'd to that degree, that ſhe was not able to reſiſt the power of her Evil, but died a few days after. She was much to blame, that being in travel ſhe ſent for me no ſooner; which, if it had been done, ſhe might in all humane appearance been deliver'd of a living child: But thoſe that were about her, not knowing her condition, managed her as a woman that had never been in travel before. On which occaſion I ſhall warn all thoſe that fall into ſuch misfortunes,

to

to lay aside their shamefac'dness, and plainly to lay open their condition, and to follow the advice and remedies of good Artists.

OBSERV. III.

Of a Sheath not quite closed, occasion'd by a wound given by a child.

IN the year 1658, I was desired to deliver a woman of a dead child, who had already been two days in labour. This woman was exceeding hot and in a violent fever; yet she wanted no throws nor strength; which made me think it advisable to defer a while her delivery, and to make her take a powder *ad fœtum expellendum.* But the Midwife would not agree to this delay, but desired, that I would receive a more particular information of the case; whereby I come to understand, not only that the child was dead, but also that the woman was in great danger, by the sore pressure, and striving, to be wound-

ed by the bones of the childs skull ſhov'd over one another; for, they had already perforated the childs head: And, though there was pain enough in the Mother, yet there was no ſufficient opening to be deliver'd the natural way: Which made me reſolve to deliver this woman by Art, as I alſo did with good ſucceſs. And viſiting her ſome days after her being deliver'd (as my cuſtome is to do in ſuch caſes,) I found her pretty well, ſhe finding no pain in making her water, and having her *lochia* reaſonably well. Whereupon I preſcribed her a good diet, which might be nouriſhing and cooling; and admoniſhed her Nurſe, in caſe any pain ſhould befall her Miſtreſs, to let me know it betimes. And thus the woman was at laſt cured.

Yet four months after, ſhe ſent for me again, and complain'd, that ſhe was not as ſhe ſhould be, being *imperforata*; (which ſhe had learned by her husband:) Informing me withall, that there was a ſmall aperture

in

in the middle, as ſhe had found by putting the end of a tin-ſpoon, (which ſhe ſhewed me) into it. So I found, that the *vagina* about the middle was by a thick membrane corrugated and grown together, yet ſo as that there was left a hole in the midle, through which ſhe had diſcharged her *lochia* and *menſes*. I offer'd her my help, which ſhe ſaid ſhe would accept of, if it could be done without inciſion. Which being impoſſible, and ſhe having no mind to undergo my way of cure, I was diſmiſſed; whereupon ſhe ſpent much money upon divers Midwives, and ſeveral Empiricks; till at laſt ſhe ſent for me again to have my aſſiſtance, ſince ſhe was with child again, and gone half her time. But not knowing any other method to help her, than what I had propoſed to her formerly, ſhe ſhew'd her unwillingneſs again, and diſmiſſed me the ſecond time. Since which time I could never learn, where ſhe is, and in what condition, dead or alive; though I have inquired after her.

Mean-time, I am assured, that she could not be deliver'd, except that passage was enlarged, or by the *Cæsarean Incision.*

It may be demanded here, why the former womans *vagina* was perfectly closed, and that of the latter not? I answer, that the former womans evil was caused by a *Gangrene*, at which time of separation the Womb could be deliver'd and purged; and after the ulceration (not being hindred by the flooding) could much better come to a coalescence. But the other wound was a *solutio continui*, whereby nature had more conveniency to make it presently grow together, before the *purgatio per lochia* was quite ended, which alone did hinder, that it could not heal up, in the middle; whereas the other ulceration was in the former woman in progress of time purged; and so not being impeded by any *lochia* or *menses*, had the conveniency to coalesce, and to heal up together.

Of the Third Part.

Proceeding to the third part of our Division of the *Womb*, which is that they call the *Neck* of it, beginning from the inner end of the *vagina*, and being that space which is from that end of the *vagina* to the *fundus uteri* it self; we are to know, that this Neck is very narrow, and comes to be shut very close, and even so close that a thin stilet will not pass into the bottom of the Womb: By which infirmity the Womb remains shut; and 'tis caused by some cold humors, stale seed, or stale *Menstrua*, whereby this neck comes to be swelled together, when they are compacted upon it. Hereof speaks *Hippocrates* in his 54th *Aphorism*, when he saith, *Quibus os uteri durum est, iis connivere os uteri necesse est.* For, at the time of the menstrual purgation it sometimes comes to pass, that Nature only discharges her self of the thinnest blood, and retains the grosser and thicker part;

whence it comes alſo, that lurking winds remain gather'd in the womb, which cauſe great pain both in the belly, and in both ſides thereof. In ſome women this *Neck* is ſo hardned, tapering out, and ſunk down; that ſometimes I can do them but little good by emollient and diſcutient fomentations, nor by anointing remedies; but am forced in that caſe to enlarge it by means of the *Radix gentiana*, *Medulla ſambuci*, or even by a prepar'd and dried ſpunge, having been firſt moiſtned in melted white Wax, and ſqueeſed in a Preſs, to make of it convenient peſſary's, according to the exigency of the caſe: By which means the Neck of the womb can be diſcloſed and widened, and made to have its due purga tions.

Now being thus widened, there may eaſily be inſerted in the opening an Inſtrument turned of Silver, Ivory, or Horn, in the ſcrew-affhion, but having one end ſomewhat thicker than the other, and the upper end being like a great Clyſter-pipe; within

turn'd

turned hollow and pervious: Of which I have cauſed (on this as well other occaſions) to be made many, and of different faſhions, ſome bigger and thicker than others ; to have them in readineſs upon occaſion. By this means Nature may disburthen her ſelf of viſcous matter, corrupt blood, and other fœtid *ſordes* ; eſpecially if ſhe, being made aware of the conveniency of diſcharging her ſelf, is aſſiſted by coughing, laughing, ſneeſing, and ſtriving. The Patient may, without any inconvenience, when the ſaid inſtrument is inſerted in the part, carry the ſame, and go about with it, for a conſtant diſcharge of the Womb. So that 'tis much better to make uſe, in this caſe, of this prepar'd inſtrument, whereby it may be conſtantly entertain'd, than to haſten the cure by the violence of a knife.

However, I ſhall for the improvement of Chirurgery propoſe a queſtion, *viz.* Whether one may not widen ſuch a hardned and tapering cloſe protuberancy of the Neck of the

the Womb (cauſing ſuch miſchiefs) by a little crooked knife, when it cannot be effected by any fomentation, anointing, ſyringation or the like means; and that after the manner uſed by antient Maſters in wounds made by ſhot, thereby to extract out of the narrow and now enlarged wound ſome pieces of the fracture, or a ſplinter, or the bullet it ſelf; or after the way uſed by the *ſpeculum vaginæ*, as we have ſhew'd in the former obſervations eſpecially, ſince we have heretofore ſhew'd, that the wound of the *Uterus*, which is neceſſary in the *Cæſarean Section*, is not mortal, much leſs this; as alſo that in that operation there is no fear of a great effuſion of blood, contraction of nerves, or fever. Which would give us hope of leſs difficulty in opening the Neck in caſe of neceſſity.

For anſwer to this Queſtion, it is well to be noted, that I readily allow this enlargement by ſuch a knife to an expert Artiſt, in caſe that the hard-

hardned and tapering protuberances are little sensible at the touch; but when there is an hardness accompanied with a sharp pain, and there appears a thin, fluid, and fœtid matter, with a blackness upon it, then 'tis not advisable to meddle with it; for then the evil is incurable.

Of the fourth Part.

Concerning the *Fourth* part, which is the very Womb it self, the soil of mankind; in it may grow a *Mola*, being a preternatural tumor, whereby the Womb is obstructed and kept from being discharged of its natural purgation, and hindred also from conceiving. *Paulus Æginet a*, l. 3. c. 69. Reckons the cure of a *Mola* amongst the cures of other hardned swellings of the Mother. *Aristotle* and *Galen* say, that it is an imperfect and useless piece of flesh preternaturally grown in the Womb, which sometimes stays with the Patient the first month; sometimes the third and

fourth

fourth, ſometimes until ſhe comes to die. Of theſe *Mola's* the little ones, if they be not grown to the womb, nor have any communication therewith, are eaſily cured.

Jacques Guillemeau ſpeaks of one *true Mola*, grown faſt to the Womb, and perceived by the Patient to have ſome life and motion; and of four *falſe* ones, in which is perceived no motion at all.

The *true* is a Carneous ſubſtance, having veins and arteries diſperſed through it ſelf, but without any bone or skull; of a hard round ſhape, ſometimes moving, and being indeed a falſe conception.

The *falſe* ones are, the Aqueous, Windy, Cutaneous, and ſuch an one as conſiſts of divers humours.

Dr. *Nicolaus Tulpius* in the 19*th Ch.* of his *firſt Book*, writes of a *Mola imaginaria.*

Moſt Authors are of opinion, that they cannot be bred but by the conjunction of a Man; as being produced, in their opinion, by foul menſtruous blood,

blood, and corrupt and unſound ſperm.

The ſigns of them are, a tumified Belly accompanied with emaciation; a cloſed Womb; a dejected appetite; nauſeouſneſs, and reaching to vomit; ceſſation of the *menſes*; ſwelled Breaſts; as alſo oftentimes pain in the loyns; ſo that ſuch women in the beginning doubt not of their being with child; though in time they do find it otherwiſe, as when they go beyond their time, or are diſcharged of it by nature when 'tis yet ſmall.

Touching the Cure required for it, 'tis the ſame with that which is uſed in the expelling of a dead fruit, or with the manner of bringing away the ſecundine, or a remaining Head of a child: which ways of curing are ſufficiently deſcribed by ſeveral Authors, as *Hieronymus Mercurialis*, *Jac. Primeroſius*, *Rodericus a Caſtro*, and others. But when this *Tumor* is faſtned to the Womb, then 'tis incurable; though divers Authors have written of it. For 'tis true,

you

you may by inſtruments extract a piece, whereupon follows a Flux of blood, with loſs of ſtrength; but, if they be firmly united to the body of the *uteri*, they are never perfectly brought away, and then do in time grow on again, and ſtick to the Patient as long as ſhe liveth. Such a Patient I have now in hand, who now and then looſes of it even a good piece of fleſh, though it grows again, and ſometimes ſhe falls ſo copiouſly a bleeding, that ſhe loſes in a manner all her ſtrength, and is in danger of dying away.

And this is, Sir, what I thought good to preſent unto you for the improvement of our Art of Chirurgery, expecting hereupon your judgment, as knowing the great knowledg and experience you have in theſe matters.

AN

AN APPENDIX Of Two OBSERVATIONS.

OBSERV. I.

Of the happy Cure of a Young Child's Fundament, which was almost totally closed.

IN the year 1646, we cured a Child four Months old, which had its fundament almost quite closed, having only left a very small opening, out of which the Mother was forced with her fingers from time to time to squeese the excrements, though she could but press out the thinner part, the grosser and thicker remaining still in the guts, and causing a great intumescence and distension in the

the child's belly, accompanied with a fever, anguiſh and pain ,inſomuch that at length hardly any thing could be brought away by ſqueeſing,yea the fundament came by the great diſtenſion to be quite ſhut up. We therefore delaied no longer the opening of this fundament, making with a lancet a ſmall aperture in the middle,& duly widening it with ſharp ſciſſers on both ſides : Whereupon there followed immediatly great ſtore of excrements that had been hoarded up, and the belly began to ſink conſiderably, and the reſt of the ſymptoms to ceaſe. Upon this good effect, we put in thick flat wiecks, dipt in the *unguent* of *Tutia*, which is very drying, and very uſeful to prevent bleeding : And by this means the child, which was a girl,was fully cured in a few days. We uſed in this caſe no leaden pipe,as they commonly do ; for the fundament thus open'd as we did, could by putting in the wieks be ſufficiently kept open.

The like Opening was ſucceſfully perform'd by Mr. *Roger Beerenart* in the

the *Nyſel-ſluys*, on a child, whoſe fundament had been wholly ſhut up.

OBSERV. II.

Of a little child with a cloſed Fundament, *whoſe opening was endeavour'd in vain.*

An. 1643. my Maſter was called to come to a child, born in the *Eenhoorn-ſluys* with a fundament quite cloſed, and having already lived two days in great anguiſh and pain. He viewed the place, and ſearched where it might be moſt conveniently open'd; and then with a broad lancet made an opening one inch broad, and two inches deep. But what care ſoever he took, he could not light upon the *inteſtinum rectum*, and was forced to leave the child helpleſs, endeavouring only to heal up the wound again, and expecting what nature would do alone. *Natura enim deficiente, deficiunt Medici.* The 14th day after the child's being

being born, the news came that it was dead, and that the Parents were very desirous the child should be open'd, as it also was in the presence of Dr. *Franciscus Deleboe Sylvius*, now Professor of practical Physick in the University of *Leyden*.

The child's belly being open'd, we found the entrals of it sound; but it had only one kidney, lying in the middle of the belly, and the *intestinum rectum* terminating directly in the bottom of the Bladder, so that the excrements, which naturally are sent out by the Fundament, were here discharged into the Bladder; and these Excrements increasing so much in quantity, that the urine could not sufficiently dissolve and thin them, to void both together by the ureters, the Bladder was thereby exceedingly inflamed, and a violent fever raised, which could not but kill the child.

Here I must exhort all Students of Chirurgery, to take very great care in the search of such defects of nature, and to try all means pre-

preſcribed by Art before the Patient be left help leſs; ſince it appears by this Inſtance, that even the greateſt care comes ſhort of ſucceſs. Given at *Amſterdam January*, 10th 1663.

The Fourth *Historical Observation* Touching *The* RUPTURE *of the* BLADDER;

The Signs, Causes, Prognosticks, and Cure thereof.

Written to the Famous Jacob van Kampen, *constituted Chirurgion of the Hospital of the City of* Hoorn.

Honoured Nevew,

I Herewith send to you and other friends, for a testimony of my grateful inclinations, and for the improvement of Chirurgery, an Observation, wherein I treat of the *Rupture* of the *Bladder*, together with the Signs, Causes, Prognosticks, and Manner of Cure. Which defect I meet often with, and the Cure whereof I find by experience very difficult and dangerous. Of which most women remain uncured, and men commonly

monly die. I have not been able, notwithſtanding my moſt diligent inquiry, to find any Authors that have written of this defect, which might give me any inſtruction about it; parhaps partly becauſe this caſe hath ſeldom occurred to others, partly becauſe from an exceſs of modeſty they have forborn to treat of it, eſpecially when met with in women. To ſupply this *deſideratum*, I ſhall now impart unto you what I have obſerved touching this Rupture, and what method I have uſed in the cure of it

You know, that the Bladder of urine, which I ſpeak of, is that veſſel, which is made by the Author of Nature for a receptacle of the ſuperfluous ſeroſities which from the kidneys are ſent thither, and are there collected in the form of Urine, and thence excreted according to the exigency of nature, if ſhe be not hindred by this defect.

This Bladder is ſeated in the middle of the under-belly, called by Anato-

them ſomewhat ſwell, and ſo the better to keep the band upon the belly: For, here can nothing be uſed but compreſſes with a fit binding-band about the body, ſeeing it muſt not be dreſſed but once in 36 hours. The Patient is to eat nothing but nouriſhing, drying, and pain-allaying meat, to wit, roaſted Mutton, or Pullets, new-laid Eggs, Naples-biſcuit, Makeroons, Marcepain, dried Cherries, Morello's, and the like. For drink (which muſt be very ſparing) he is to drink Greek-wine, and good old Red-wine, and white Marſeilles-meath, *&c.* The band or dreſs is not to be opened but as was ſaid above, and unleſs it be for a weighty reaſon, and to let the Patient make water: which muſt be done with great caution. And the Patient muſt keep himſelf quiet in his bed, lying on his back, with his belly ſomewhat raiſed, and ſo continuing till he be healed.

But in caſe that the Bladder is burſt in ſuch a manner, that 'tis not poſſible to get at it, and to heal it, then it muſt

be

orbicularis Sphincter, the propelling muſcle; but is by D. *Gerardus Blaſius* not counted a muſcle, but a carneous membrane; as you may ſee in his *Syntagma Anatomicum Johannis Veſlingii*. 'Twill be needleſs, to ſay here any more of the Anatomy either of the Neck of the Bladder, or of its ſubſtance, or veins, Arteries, Nerves, and of it's uſe; what has been already ſaid, being ſufficient for our purpoſe.

Now then to begin with the *Signs* of the Rupture of the Bladder, you may note, that it is perceived, firſt, both by the Eye and the Touch; as alſo by having received an extraordinary knock or blow upon the belly; and when one cannot make water, nor hath any inclination for it; and when his belly comes to ſwell with pain and diſtenſion, and 'tis not poſſible to bring away any urine by the inſtrument called *Catheter*. And particularly in women, when they find their urine to leak through the *vagina*, and to come a-

way againſt their will; cauſing in the *vulva* great pain, burning and ſmart, the urine alſo having an odd ſmell, like that which comes from thoſe that are leaking after they have been cut of the Stone, and having on the bottom of the urinal moſt commonly a ſtony and chalky matter, mixed with ſome fibroſity. And ordinarily ſuch perſons have more pain *in* making water than *after* it, like thoſe that have ulcers in their bladders; as, on the contrary, thoſe that have the Stone in the bladder, feel the greateſt pain before they come to make water, unleſs the Stone be accompanied with an ulcer; for then they are alſo pain'd after they have made water. The cauſe whereof is, that the angular ſtone by a preſſure of the Urine is caried forwards, and by little and little ſinks again to the bottom of the bladder, and ſo cauſes pain alſo after the water is made.

But to go yet furer in the knowledg of the Bladders rupture, I do

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in that caſe ſearch with two *Catheters*, conveying the one into the ordinary urinal paſſage of the Bladder, and the other through the *vagina* into the rupture or burſting, going as far as into the Bladder; and I bring both the *Catheters* together, ſo as to perceive them by the contact and ſound.

You may alſo come to the knowledg of it by applying the *ſpeculum vaginæ*, having therewith ſomewhat widen'd the body, ſo that you may plainly ſee with your eyes, and feel with your fingers the rupture; as we ſhall hereafter explain in the Cure.

As for the *Cauſes* of it, they are of two ſorts; Internal and external. The *Internal* are, either a Stone, or a ſtony accretion to the Bladder, cloſed up in a membrane of its own; *or*, the robuſtneſs and vigour of a child, ſtriving with all its might to come into the World; *or*, the fulneſs of the bladder with urine, and its inability to reſiſt ſo great a force both of the Mother and child, by reaſon of its thinneſs.

neſs. The *external* are, a violent blow, fall, or knock; as alſo the uſe of much humidity in hard labour, or of ſtrong diureticks; violence likewiſe uſed by an unskilful Midwife in the lifting up, as they pretend, of the *os pubis*.

As to the firſt *Inward* cauſe, *viz.* the ſtony accretion to the bladder, included often in a membrane of its own, or ſometimes communicating with the membranes of the bladder; I have met with ſeveral ſuch caſes, and been obliged to take away the skin with a pair of ſciſſers, ſeeing it was beſet with much ſtony matter and accretions. It may alſo come to paſs, that, in caſe there be a formed ſtone in the bladder, included in a membrane of its own, ſuch a ſtone, by the preſſing and force of the child, to which it is put in the time of labour, is broken in pieces: For, moſt women that I know to have been troubled with this evil, have by the rupture of the bladder diſcharged a ſtony and chalky matter, mixed with ſome gra-

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vel. For, although the Stone hath no communication with the membranes of the bladder, or is not grown to them, yet it may by the urine, and its great preſſing on, as alſo by ſtrong diureticks, come to ſhoot forwards; ſo that the Bladder in a hard labour not being able to yield, and being preſſed by this calculous ſtuff, is at length wounded and broken; whereby is cauſed a ſharpneſs of urine, now lying between the *vagina* and the bladder, which acrimony firſt produces rawneſs and pain, then ulceration and leaking.

Now that there grows ſometimes a ſtony matter *to* the neck of the bladder, as well as there grows a ſtone *in* the bladder, many can witneſs together with me. For we often find it in the cutting of the ſtone; as alſo, that it lies cloſed up in a membrane of its own, and communicates much with the bladder. You may alſo ſee hereof the *Medicinal Obſervations* of *Johannes Schenckius, lib tertio de Veſica urinaria*: As in *Obſerv.* 269. where

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he ſaith, *Lapides veſicæ non-nunquam, novo exemplo, concluduntur involucro cutaneo, qui ob id cathetere explorari minimè poſſunt.* And in *Obſerv.* 270. where he proves, *Calculos aliquando veſicæ adnaſci & adhærere.* And *Hollerius de morbis internis, l.*1 *c.*49. *Mercatori cuidam omnia calculi veſicæ ſigna aderant. Cathetere probari non potuit. Mortuo, duo magni calculi inventi ſunt; ſinguli unciarum duarum ſemis; membrana incluſi utrq; ſua.*

And *Ambroſius Pareus* in his 17*th. Book*, the 36*th. Chap.* ſaith; In caſe that the ſtone is very firmly faſtned to the bladder, and cover'd with a membrane, then can it hardly be ſounded with a *catheter*, and the Chirurgion will alſo lacerate the bladder, if he thinks to draw out the ſtone; whereupon commonly enſues a gangrene, convulſions, and death it ſelf.

Amongſt the *external* cauſes, we did comprehend a violent blow, knock or fall, received eſpecially when one hath not made water a great

while

while before, and so hath the bladder full, which then must needs burst. This may particularly come to pass by a sudden yerking out of bodies, as of a cable to the utmost extended, or a Cap-stone suddenly flying back, &c.

And that it may also befall women in labour, is apparent, because that some of them being very dry, do greedily drink, whereby the bladder comes to be highly extended: Now the child striving with great force to come into the world, the Bladder is thereby in great danger to burst, especially if diureticks have been used to hasten the birth; unless by a *Catheter* the bladder have been first discharged: For which reason, Physitians are wont to prescribe clysters, thereby to empty the *Intestinum rectum*; which is of good effect, if use be made of them time enough, before the child be come to the birth, and is as yet not advanced with the greater part of its body out of the womb into the *vagina*

gina. For, when a *fœtus* is already come to the birth, then are Clyſters uſeleſs, though fomentations and anointings may then ſtand in good ſtead. And here are great miſtakes committed by many Midwives, who, when they are at their wits end, talk of Clyſters, and think that they may be uſed in all caſes without delay, turning the good uſe of them into a great abuſe; whereas by an untimely application thereof both the Mother and the child are ſo incommoded and tormented, that whatever is near it (eſpecially if the *fœtus* be luſty and ſtrong) muſt burſt and break; inſtead of the advantage, which the ſeaſonable uſe of a Clyſter may carry with it.

And, (to note that by the by) ſome will not ſuffer a skilfull applier of Clyſters give a Clyſter to a woman in travel; as if they could do it as well or better. But I have found by ſad experience, not long ſince, that delivering a woman of a dead child, I found the Clyſter-pipe ſtick-

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ing in the child's breaſt after it was come into the world: Whence it appear'd, that this Clyſter, by the ignorance or impudence of the pretending wiſe Midwife, had been conveyed into the *vagina* it ſelf, perforating the breſt of the poor child, in ſtead of being conveyed into the *inteſtinum rectum*; the Phyſitian alſo finding, that the Clyſter had produced no effect at all.

I muſt therefore intreat and exhort all Midwives, that the child being well turn'd and come to the birth, they take great care not only of what the travelling woman drinks, but alſo of her body and ſtrength, and that they put no violence to it, eſpecially about the *os pubis*; for thereby this may eaſily bruiſe and wound the neck of the bladder. This not being obſerv'd, it often comes to paſs, that often women after their delivery cannot hold their water, but muſt let it paſs againſt their will; which is an unhappy thing.

But

But to proceed to the *Progno ticks*; I affirm, that a Bladder burſt in a woman by an *internal* cauſe, is moſt commonly curable; but, when cauſed by a fall, blow or knock, mortal, eſpecially in men.

The wound is more dangerous in the bottom of the bladder than elſewhere; where it is joyned to the *vagina*, the danger is not ſo gaeat.

And as the wound made by an internal cauſe is not ſo dangerous, as that which comes from an exter nal; ſo that which is the effect of an Ulceration, is leſs dangerous than that of a Rupture. And how difficult the cure of the latter muſt be, is eaſie to conjecture by its *membranous* texture: And when it happens to be in the bottom of the bladder, 'tis then altogether incurable, becauſe then there ariſe immediately ſharp pains, inflammations, a fever, and convulſions. For the bladder, which elſe is a repoſitory of the urine, doth now let it flow through all the belly, where being gather'd together, it

ſwells

swells it exceedingly, and by its acrimony corrodes the bowels, and extinguishes the natural heat, as it happens in Dropsies: Whence the miserable Patient must soon die. An example of which occurred to me in the year 1645, upon the *Gelders Key*, in a young man, who being come home drunk at night, and gone presently to bed with a full stomach, when he awaken'd in the night, and met neither with chamber-pot, nor any thing else to make water in, resolved to piss out of the window, and thereupon thrusting against the window as he thought, he thrust open the door of an upper room in a pack-house; where, being yet between sleeping and waking, and not able to hold himself when he began to make his water, fell down headlong with his belly upon the threshold of the house-door, whereby the bladder, not yet fully emptied, came to burst: Whereupon, as soon as this sad case came to be known, he, who had no relations to take notice of him, was carried into an Ho-

ſpital, being in an high fever, and ſadly complaining of great pain in his belly, which was much ſwollen and diſtended, without any deſire to make water. This poor Patient could be relieved by no remedy, whether inward or outward, nor by any Clyſter; neither was there a poſſibility of drawing any urine away by a *Catheter*; ſo that he died the 14*th* day after his fall. The corps was opened by M. *Rogier Beerenart*, in the preſence of the Learned and famous D. *Samuel Coſter*, and we found his belly full of water, and the bottom of the bladder quite burſt; though the reſt of the entrals were ſound, being only ſomewhat corroded by the ſharpneſs of the Urine.

But now, if the Bladder come to burſt near the neck, there is no doubt but that by reaſon of its muſcular ſubſtance it may be cured; or when that happens about the *Sphincter* of the Bladder, or above the *os pubis*; of which you may ſee an example in *Nicolaus Tulpius*, *l.* 4. *c.* 29. of his *Obſervations*, where

where he ſaith: *Miles plumbea glande ictus doluit impenſe in imo ventre, ob effractum pubis os, veſicam ſumme dilaceratam, cujus tamen vulnus, præter mentem aphoriſmi* 17. *l.* 6. *ad cicatricem cum foret perductum, non minxit propterea liberius; ſed reddidit nihilominus urinam cum ſumma difficultate.*

This Cure therefore in our caſe, muſt be undertaken with great care, and the Chirurgion is obliged to conſider, *firſt* of all, the ſtrength of the body, and take alſo good notice, when the woman had her laſt *lochia*, and in caſe ſhe be of a ſanguine or other conſtitution, preſcribe her accordingly, upon the advice of a good Phyſitian, a good diet, and heedful regiment of life: And *then*, duly diſcharge her body as well by purging as bleeding, if the caſe doth ſo require.

The Operation it ſelf is performed in manner following: The Patient is laid on a Table, towards a good light, and have the upper part of the body

covered, and the lower part ſecured with ſwathing bands, as is uſual in the caſe of cutting perſons of the Stone. This done, 'tis neceſſary with all ſpeed to widen the body by means of a *ſpeculum vaginæ*, according as occaſion ſhall require; and then to make raw and bloody the edges of the ulcerated *vagina*, where with the lacerated part it is joyned to the bladder, and as little as is poſſible to approach the bladder: For the *vagina* is firſt by the ulceration, and then by the edges ſo united to the lacerated Bladder, by the providence of nature, that being but a very little and duly taken off, and ſtitched together again, the cure may be performed with great eaſe. The reſection or taking off is made by a pair of well-cutting ſmall pincers, or by ſciſſers, or ſome ſharp little knife, or the like proper inſtrument, as the Maſter can beſt manage on ſuch an occaſion. But I have found, that nothing is better than a ſmall pair of cutting pincers; but they muſt be as ſharp as is poſſible, that they may not cauſe

cauſe any contuſion in the cutting: And hereby the edges of the lacerated part is a little pared off, and rendred raw and bloody; and they muſt inſtantly be ſtitched together again; but not by ſilver or gold-needles, as is uſual in *Hare-mouths*, but by ſtitching-needles made of a ſtiff Swans quill, cut fine and ſharp; which I chuſe by reaſon not only of their flexibleneſs, but alſo of their cauſing leſs hurt to the neighbouring parts before their being conveniently defended; and theſe needles muſt be thredded with red *Carmeſyn* ſtitch-ſilk. Such needles as theſe being bent, they will of themſelves become ſtreight again. This being done, the ſtitched wound is to be moiſtned with ſanative balſom, by me deſcribed in the *6th. Hiſtorical Obſervation* of the *2d Part*; and the ſame wound is to be ſwathed about with two or three great flat ---- moiſtned in the warmed Balſom-oil, and you muſt fill up the belly with convenient ſpunges, moiſtned a little with oil of ſweet Almonds, to make

them ſomewhat ſwell, and ſo the better to keep the band upon the belly: For, here can nothing be uſed but compreſſes with a fit binding-band about the body, ſeeing it muſt not be dreſſed but once in 36 hours. The Patient is to eat nothing but nouriſhing, drying, and pain-allaying meat, to wit, roaſted Mutton, or Pullets, new-laid Eggs, Naples-biſcuit, Makeroons, Marcepain, dried Cherries, Morello's, and the like. For drink (which muſt be very ſparing) he is to drink Greek-wine, and good old Red-wine, and white Marſeilles-meath, &c. The band or dreſs is not to be opened but as was ſaid above, and unleſs it be for a weighty reaſon, and to let the Patient make water: which muſt be done with great caution. And the Patient muſt keep himſelf quiet in his bed, lying on his back, with his belly ſomewhat raiſed, and ſo continuing till he be healed.

But in caſe that the Bladder is burſt in ſuch a manner, that 'tis not poſſible to get at it, and to heal it, then it muſt

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be entertained and dreſſed with clean compreſſes made of very fine linnen. Thus I have had divers Patients, to whom I could do no more than eaſe the rawneſs and pain of the part by ſyringation, cooling oils, and pain-allaying unguents; and they, after that by the acrimony of the urine (the upper skin being often mixed therewirh) the part was grown ſomewhat harder, have been at much more eaſe than before. Upon occaſion I have alſo employed divers veſſels both of Copper and Silver, which, together with a band, the Patients carry about their belly, by means whereof they receive their water both going and ſtanding; but they cannot ſit with it.

Herewith, dear Couſin, I commend you to God Almighty's protection, and remain, *&c. Amſterdam*, the 10*th* of *Jauuary*, 1663.

THE SECOND PART OF THE *Medico-Chirurgical Observations* OF Henry *van* Roonhuyse.

OBSERVATION I.

WRITTEN

To the Learned and Famous Dr. de FOY, *alias* LUC, *Chirurgion in Ordinary of the Lords the States General, and Principal Chirurgion to all the French Regiments which have been employed in the service of the* United Netherlands, *in the Spanish War.*

In which Observation is not only clearly proved the firm union of the dura mater *to the skull, but also shew'd the modern Use and Abuse of Trepanning; the Abuse proceeding from the slight knowledg in some Chirurgions of the Anatomy of the Head and the parts thereof.*

SIR,

YOur acceptable Letter of the 28*th November*, 1656. came well

to

to my hands, being an anſwer to my laſt, written to you, wherein I repreſented unto you, that by ſeveral Diſſections of Animals, to wit, *Calves*, *Sheep*, *Dogs*, *Pigs*, and others, I was fully aſſured, that the *dura mater* in Animals is always ſo firmly faſtned to the caviry of the *cranium*, that without violence it cannot be ſever'd from it: Which I have alſo found in divers skulls of men, opened by me; ſo that now I am ſatisfied of the manner, how the ſaid membrane ſticketh to the skull, *viz.* whether it be only firm and cloſe to the ſutures of the Head; or whether (as I think) it inveſts and ſticks cloſe every where to the inner ſides of the skull? Which is a difference yet conteſted amongſt Anatomiſts and Chirurgions. The famous Chirurgion *Fabritius Hildanus* in the *7th* Obſervation of his firſt Part, ſaith thus: *Inciſo & perforato, dura mater ubiq; cranio firmiſſimé adhærere inventa.* But this great Maſter held this to be preternatural, together with *Conſtantinus*: For, he ſaith

faith again; *Dura mater connectitur ſuturarum ope, tum ut penſile & erectum teneat cerebrum, tum etiam ut per ſuturas egreſſa pericranium procreet. Spatium inter ſuturas rectè natura liberum reliquit, ut vacuum quoddam eſſet inter duram matrem atq; calvariam; has nimirum ob cauſas. Primo, ne quicquam ipſius Cerebri ſyſtolæ ac diaſtolæ obſtaret. Secundo, ne venæ & arteriæ, per extremum duræ matris ſparſæ, levi aliquo ictu in Cranio facto rumperentur. Poſtremo, ut ruptis in dura matre venis, ſanguis non inter duram ac piam matrem, ſed inter duram ac cranium effunderetur, & perforato cranio facilius extraheretur. Hic eſt ordinarius naturæ ordo. Nos contrarium in uno atq; altero obſervavimus.*

For theſe and other reaſons, Sir, I have taken the liberty to write to you concerning this matter, that I might have your opinion in it, whether you are of my mind, or not, touching the cloſe union of the *dura mater* to the ſkull, or not. Now by yours of the

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ſaid 23*th.* of *November* I find, that your and my ſentiment in this point do agree, to wit, that the *dura mater* doth every where cloſely adhere to the *cranium* within, ſo as not to be ſeparated from it but by force; no otherwiſe than paper is paſted on to a piece of Glaſs. For the communication of which opinion of yours I return you many thanks, being ready to recompence that favour to the beſt of my power. Meantime you ſpeak to this matter with a diſtinction, in theſe words: *Ad propoſitam tuam quæſtionem, Utrum dura mater interiore parte cranii ubicunq; locorum firmiter adhæreat, Vir Clariſſime & Amiciſſime? Reſpondeo, cum hac diſtinctione ſcilicet, quod in ſuperiore, anteriore, poſteriore, & lateralibus partibus, ſecundum tuammet opinionem firmiter adhæreat, ſed quod circa os cuneiforme ſit laxiſſima. Huic meæ aſſertioni potes fidem adhibere.* Which, if it be ſo, the body, wherein 'tis found, hath been for ſome days dead, the humidity of the brain having

ving made that membrane laxer, and forced it from the *cranium*. For in the body, whereof I speak, I found it not so, though I did very attentively consider it: But, according to the famous *Spigelius*, *Processibus ossis cuneiformis crassa cerebri membrana adnascitur. Et secundum* Thom. Bartholinum, *dura mater valide basi ejus adhæret, ut inde ortam aliqui putaverint: Et secundum* Adrianum Laurentium, *dura hæc meninx basi calvariæ adhæret firmiter, nisi qua parte sita est Glandula pituitaria, lib.* 10. *c.* 7. So that, *Sir*, I find in this particular your opinion different from that of these excellent men. But what shall I say other than that I hope in time to find the truth of this matter; concluding with *Jacobus Berengarius, Carpensis, lib. de Fractura Cranii, his verbis: Nunc autem de signis separationis duræ matris a cranio dicamus; sed, antequam de istis signis agam, dico, quod non possum non mirari, esse aliquos Authores & non paucos, qui tenent, duram matrem semper distare a cranio, exceptis com-*

commiſſurarum locis, in quibus omnes conveniunt, quod ibi ſit allig ata; ſed illi ſunt in puro errore, quales quales etiam ſint, quia purum loquuntur mendacium.

The 14*th. December* 1656. I ſaw, with the Phyſitian *Paulus Barbette*, the body of a young man lately deceaſed, whoſe whole neck was full of ſcrofuls; and his body being opened, the whole meſentery was ſcrofulous, and the viſcera of the Breaſt likewiſe. Having the opportunity of taking off the *cranium*, (which we did in the preſence of the Experienced Phyſitians, *Franciſcus Verſchagen*, and *Matthæus Sladus*, and divers Chirurgions of our City, who are all ready to bear witneſs to the matter of fact) we proceeded, as follows;

Firſt, having cut croſs-wiſe, to the very bone, the skin of the head, and duly taken it off, we ſaw'd the *cranium* thorough from before to the hind-part, together with the Brain it ſelf, making firſt with the ſaw a gentle ſection thorough the front-bone, until

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the ſecond table was almoſt cut through; and then with the point of a ſharp knife cutting through the *dura mater*, that ſo it might not by the ſaw be diſordered: For it is of all the membranes that cover the bones, the thickeſt, tougheſt; and, according to the ſaying of *Spigelius*, *craſſa membrana, craſſiorem ac duriorem habet ſubſtantiam, non tantum ſi cum ſua conjuge conferas, ſed cum reliquis univerſi corporis membranis.*

The skull together with the brain being thus ſawed thorough, I took it off carefully; for the tender and thin *pia mater* is by many fibers and arteries faſtned to the *dura mater* (to the end that the Brain might the better have its motion) which therefore is to be taken off with care. This done, I ſhewed to the By-ſtanders what I intended, and every one of them did ſeparate and tear off a part of the *dura mater*, that ſo they might ſee with their own eyes, and feel with their own hands what I ſaid, and bear witneſs to the truth. One part of

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that membrane being ſevered, we reſerved the reſt for the coming of the famous Anatomiſt and Phyſitian *Franciſcus Sylvius*; but he coming too late, having been kept away too long by buſineſs, the By-ſtanders and Spectators related unto him what they had found, *viz.* that the *dura mater* did cloſely inveſt the inner ſides of the *cranium*; having been hitherto by great Anatomiſts, as *Spigelius* and *Laurentius*, eſteemed for a membrane enwrapping the *Brain*: *Et tamen inter partes continentes annumerari poteſt, quia dura mater cranio eſt alligata, & maximum eſſet periculum de ſeparatione ejus; imo impoſſibile eſt quin lædatur. Quid amplius dicam, quam quod ægris poſſit mortem inducere?*

Now, if Trepanning be thought *unneceſſary*, and the *dura mater* be naturally united to the *cranium*, then certainly is the *Decuſſorium* to be rejected; and if it be eſteemed *neceſſary*, then is the ſaid *Decuſſorium* yet more unuſual; for then one may conveniently

venientlу enough diſcharge the matter from the *dura mater*, when the Patient comes to cloſe his noſe and mouth, and ſo drives the included wind from the Breaſt to the Head.

So that the *dura mater* hath no other property, than within totally to inveſt the *cranium*, and to defend the motion of the Brain from the hardneſs and inequality of the skull-bone, that ſo the Brain may not be hindred in its operation, or be put to any pain; (the motion thereof conſiſting in a *Syſtole* and *Diaſtole*.) Whence it may be underſtood, that the inſtrument, called *Lenticulare*, hath no other uſe but to raiſe and to lay even the edge of the *cranium* lying underneath, and to remove that unevenneſs of ſplinters that may perhaps have been occaſioned by boring; but not to preſs on from beneath the *dura mater*, for a more convenient diſcharge of the ſubſided matter, as is daily practiſed by the *Decuſſorium*, as they call it. This being ſo, it highly deſerveth to be well conſidered, in what

caſes Trepanning is neceſſary, and when not. For a *concuſſion* of the Brain cauſeth the ſame ſymptoms that a crack or fracture of the skull doth; and in this latter caſe, Trepanning, in the modern vulgar practiſe, is made uſe of, but often without any benefit; *nam dura matre alligatâ maximum eſt periculum de inciſione cranii, imo impoſſibile eſt quin lædatur meninx, quia firmiter adhæret cranio.*

For *firſt*, when in this caſe you employ the Trepan, and that with care, (as I have ſeen it frequently done) there follows neither coagulated blood, nor purulent matter, but often 5 or 6 drops of good blood, cauſed by the taking out of the bone bored round. In this caſe the *cranium* is forced from the *dura mater*; whereby grievous accidents are occaſioned, and the Patient caſt into the danger of his life. This is a very troubleſome point for Chirurgions. For there are many, that take only their meaſure from the diſcharge of the blood which they ſee come up;

and

and then they perſwade thoſe that are concern'd, of the neceſſity of Trepanning. Whereas I, on the contrary, ſhould in that caſe judg it unneceſſary; for then the vulgar Chirurgions will, after the old way, go to work with cleanſing and abſterſive means; whereas, in my judgment, there ſhould be employed no other than ſuch means as give a cheriſhing warmth, and are anodyne and incarnative. But yet I am willing to ſubmit my opinion to thoſe that ſhall by reaſon and experience inſtruct me better.

Secondly, the Trepan is often uſed in cracked or broken brains to no purpoſe: And in this caſe the ordinary Chirurgions have nothing to alledg for the neceſſity of Trepanning, but that the extravaſated blood of the veins comes to preſs upon the *dura mater*; which indeed ſometimes is true; but then there is ſomething to be conſider'd which is of more importance. For, ſince in a crack or fracture of the skull the extravaſated

blood ouzes more through the wound, along the fracture, inwards, and ſo leaks upon the *dura mater*, than that the *arteries* within, diffuſed through the membranes of the Brains, ſhould come to break; why ſhould we not reſolve, by convenient fomentations, and by warming, diſcuſſing, repelling, and anodyne means (ſuch as may be prepared with certain roots, herbs, flowers, and ſeeds) to draw out ſuch blood as by the crack or fracture is leaked and got in, and thereby to diſſipate and waſte it; as is done in great concuſſions of the Brain, and big tumours and boyls of the head, in which the ſymptoms are as grievous as in a broken skull; witneſs, together with me, the excellent Chirurgion *Arnoldus Tholinx*, in a caſe which not long ſince befell the Child of a Maſter of a Ship, that was fallen down from the upper deck of the Ship to the bottom thereof, being the height of 11 or 12 foot. Here the Trepan having been judged neceſſary, upon the dangerous accidents en-

enſuing, and by us propoſed as ſuch to the Parents of the Child, but by them refuſed; we employed nothing but convenient fomentations, and proper ointments, and the like; by which means the Child was happely recover'd, to the great inſtruction of my ſelf, and the benefit of others.

Obſerve hence, that ſometimes there do follow ſuch accidents, and yet the Patient is cured without Trepanning. The ſame is atteſted by the Learned *Jacobus Beringarius lib. de fractura Cranii c.* 35. In theſe words: *In illo qui fuerat enſe vulneratus capite in cranio, erat fractura feré capillaris, major tamen, & intro penetrans, ſine panniculi læſione. Circa decimum diem vidi accidentia ſeparationem monſtrantia: Statim ergo volui os incidere, & fiſſuram ampliare; ſed ille nunquam voluit permittere. Proceſſi igitur in cura cum attrahentibus, & ſemper per rimulam illam exiit notabilis ſaniei quantitas. Cum ei imperarem, ut impelleret à pectore ad caput aerem,*

ſufflando notabilis ſaniei quantitas exiit; ſemper tamen habuit febres, & rigores, & inquietudines, ad quinquaginta fere dies.

That Patients may be cured of cracked and broken ſkuls without Trepanning, Experience teacheth, and *Petrus Foreſtus* atteſts it in his 32*th* Book; and that by reſolving and diſſipating remedies. And *Lanfrancus tract.* 2. *c.* 1. *de Vulneribus capitis* relateth, that he hath obſerved more men cured by Medical remedies, than by Chirurgical trepanning; Adding, that he uſeth no inſtrument for the taking out of bones, but in two caſes; the *one* when the skull is ſo broken, that the broken parts lie and lurk under the whole and ſound parts; the *other*, when a fragment, ſeparated from the skull-bone, comes to prick and wound the *dura mater*. In which caſes, *he ſaith*, the removing of ſuch fragments ought to be immediately indeavour'd. The ſame is noted by *Vidus Vidius* of *Florence*, in his Expoſition of the

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treatiſe of *Hippocrates de morbis Capitis*; where he relates of a famous Chirurgion at *Rome* in his time, call'd *Peruſius*, that averred, to have obſerved by long experience more people recover'd without the help of the trepan, by diſcutient remedies and ointments, than by cutting the skin and boring the skull.

To reject trepanning altogether, is not my deſign nor meaning, becauſe it is ſometimes abſolutely neceſſary in great Fractures of the skull, where ſome point or other of the bone doth wound the membranes, and ſometimes paſſes into the Brain it ſelf; or when one bone is ſhoved upon the other: But to be ſo preciſe, as to uſe the trepan the ſecond or third day, is not neceſſary; for it may be defer'd with more benefit to the ſixth or ſeventh day, and in winter yet longer; *ſecundùm Avicennum, qui inquit, oportet ut non tardetur æſtate ultra 7 dies, in hyeme vero ultra* 10. And I ſay with *Nicolaus*, that the bone is not to be removed but

upon urgent neceſſity; foraſmuch as the Patients are often recover'd by Topicks, without taking away any of the bone; which Phyſitians thought could not be done. And if within ten days the ſymptoms ſhould come to diminiſh more and more, I ſhould then yet longer defer trepanning, and endeavour by the advice of a good Phyſitian to cure the Patient by other means; as you will be further inſtructed in the obſervations hereafter following.

In the uſe of trepanning I have often found, that no ſooner is the trepanned bone taken out, but there follow immediately five or ſix, more or leſs, drops of blood; which is not blood extravaſated by the fall or blow; but, in my opinion, from the *dura mater*, ſome ſmall orifices of veins or arteries terminating in that place.

Again, it comes alſo to paſs by a concuſſion of the Brain, made by a blow or fall, that ſome or other of the veins of the membranes, terminating in the ſkull, come to let out

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ſome of their blood, which in a few days comes to change its hue : In this caſe the trepan is highly neceſſary. And then you ſhall ſeldom find good blood under the *cranium*, but on the contrary an ugly matter, drawing commonly to a green : which I have often obſerved in the Trepannings performed by the experienced Chirurgion *Roger Rogierſe Beerenart*.

Now then, when a diſcreet Chirurgion cannot avoid trepanning, I ſay, that that vulgar inſtrument, call'd the *Decuſſorium*, is by no means to be uſed any more ; for by it you will be apt ſooner to pull off the *dura mater* from the skull, than make the matter to come away the better. For, if you take good care, the trepan would take away the ſhavings of the bone without cauſing any ſplinters, unleſs the boring be not made every-where and equally deep, or that part of the bored bone by imprudence be forcibly broken out ; and then the inſtrument, call'd *Lenticu-*

ticulare, is employed to make even the inequality, caused by the force of taking out.

The other benefit, which they propose to themselves in pressing down the *dura mater*, is, that the purulent matter may have the better issue. To which I answer, that the *dura mater* very firmly investing the inner sides of the *cranium*, it is beyond all doubt, that the sanious matter, or the coagulated blood, will not sink further nor lower, than the weight or plenty of the said matter or blood by its gravity shall permit. Rejecting therefore the *Decussorium*, I say, that, if that were not so as have said, the matter would come to subside at least to the first *vertebra* of the neck, and lower too; and it would not so much cause such grievous symptoms of a broken *cranium*, as of a wounded Spinal marrow.

Nor ought the City-Chirurgions, because of the report they are to make for the information of the Court of Justice, take off the brain-pan a-

ny more after the received way, which is, by a decuſſating cut unto the very bone,and after they have(according to the old method) ſever'd the membrane of the ſaid Pan, by ſawing the skull round about, and then uſing a flat crooked Spatule, to looſen the *dura mater*, and to ſever it from the ſutures, to which it is every where faſt, and ſo forcibly tearing the Brain-pan from the ſaid *dura mater*,by which means the ſmall orifices of the Arteries, terminating in the *calvaria*, come to be torn off, to the great miſchief of the Patients; For the *Calvaria* cannot be well taken off this way, but you will find ſome drops of blood ſpilt upon the *dura mater*, and alſo between *it* and the *pia mater*. To avoid which danger & miſchief, I muſt needs prefer the former method to this; yet without impoſing upon any experienced and diſcreet Maſters of the Chirurgical Art.

This is, *Sir*, what I thought good to preſent you with for a New years-gift, returning you many thanks for

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the honour you have done me, and begging your judgment upon theſe conſiderations of mine; promiſing you alſo at the ſame time, that I ſhall be no ſooner come back to the *Hague*, but that I will ſeek an opportunity of conferring more largely with them, particularly about this Queſtion, viz. *An Hydrargyrum per ſe excitet fœtorem in Ptyaliſmo nec ne*? Written in Amſterdam, the 18th *Decemb.* 1656,

But ſince I have by my daily Practice been hindered to diſcourſe with you more nearly, to prove that *Quick-ſilver* in a ptyaliſm doth not of its own nature raiſe a ſtink; I ſhall acquaint you, that I had an occaſion to write of this ſubject to Dr. *Wilhelmus Piſo*; whence you may ſufficiently underſtand my thoughts about it, not doubting but you will take them in good part, as follows;

Clariſſimo Doctiſſimoq; Viro
Dom. GUILIELMO PISONI
Med. Doctori Expertiſſimo
S. P. D.
HENRICUS à ROONUYSE.

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VArias eaſq; jucundiſſimas, rem Medicam ſpectantes, ſententias, exhibuiſti, dignas ſane non ſolum omnibus aliis, ſed & mihi ipſi inquiſitione ulteriori. Hinc dies noctesq; impendere neceſſarium omnino duxi, ſi non ad omnia, ſaltem plæraq; eorum, quæ exercitii gratia propoſuiſti, vellem ſatisfacere. Quæſtionum illarum præcipua eſt: An Hydrargyrum in *Ptyaliſmo* per ſe fœtorem excitet, nec ne?

Ego poſterius probabile cenſeo, adeoq; Hydrargyrum nullum per ſe excitare fœtorem exiſtimo.

Primo, quia minerale eſt frigidæ ac humidæ naturæ, ſecundum Fernelium; *ac in nervoſis corporis partibus, nullum excitans ſymptoma, per multos latitare poteſt annos: In* Ptyaliſmo *verò ulcera ab humore excitato fiunt, cujus acrimoniâ exulcerantur gingivæ, lingua, parteſq; aliæ. Quoties enim corporis extremitates unguento inunguntur Mercuriali, toties ad nobiliores interioreſq; partes Hydrargyrum fertur, ad Inteſtina nempe, Stomachum, Cor, Hepar, &c. mediantibus vaſis*

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ſanguinem continentibus, maxime venis; in quibus omnibus vel fermentationem novam humoribus corruptis inducens, vel eam quæ jam adeſt promovens, halitum & malum odorem excitat; & hinc eſt, quod ſi pravi hi venenatiq; humores ex viſceribus interioribus vaſiſq; expelli nequeant, Lipothomia, Febris, Anxietas, Cardialgia, Vomitus, Diarrhæa, ſimiliaq; ſymptomata, proveniant; per os autem ſi expellantur, ob acrimoniam, quam habent, ulcera ac deinde fœtorem excitant.

Secundo, in Ptyaliſmo *ulcera quo majora, eo major fœtor; qua de cauſa non Hydrargyrum ſed Ulcera fœtorem parere liquet; ſordida enim Ulcera fœtorem parere liquet; ſordida enim ulcera ſuos, (ut alia excrementa) habent fœtores.*

Tertio, Hydrargyrum per alvum ſi exoneretur, æger in diarrhæam incidit, & cum Ptyaliſmus *excitari non poteſt (ut in quibuſdam fit) nullum niſi ab humore peccante, in viſceribus ſegregato, habebis fœtorem: Sed non*

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ab Hydrargyro; quod arte Chymica ita fixum reddi potest, ut nullam in corpore operationem exerceat, nisi quod sudorem moveat: Ac in ea operatione Hydrargyrum nullum excitare fœtorem potest; ut nec in iis, in quibus Hydrargyrum per urinam expellitur, ut aliquando observavi,

Quarto, idem Pilulæ ex Hydrargyro crudo factæ docent, quæ bilem aliorumq; humorum acrimoniam domant, compescunt, eosq; sensim, nullo ventriculi incommodo, expurgant; quod in Iliacæ passionis *curatione videre est, secundùm* Marian. Sanct. lib. de Casu. *Quod si minerale illud probe præparetur, & sublimatione, calcinatione, solutione, similive modo in essentiam redigatur, excellens evadit Theriaca,* Josepho Quercetano *teste. Idem singulari ratione in essentiam redactum, Auri essentiæ simile esse, quidam contendit; homines quasi ad juveniles annos revocandi virtutem ipsi assignando, dum scil. virtute mirabili eos ab omnibus putridis venenatisq;, mortem acceleranibus, humoribus liberat.*

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Virtus hydrargyri, per artem præcipitati, quanta ſit, videre licet apud Palmar. l. de Elephantiaſi, *quem his verbis concludit*: Omnium remediorum Elephanticorum vires Catharticum noſtrum Metallicum ſuperat, acrem omnem ac feram humorum omnium qualitatem ac malignitatem mirè obtundens, ac nihilominus adeo blandè alvum ſolvens, ut pueris & prægnantibus tutò dari poſſit. Conſtat illud ex Auro ac Hydrargyro ſic permixtis, ac longa maceratione immutatis, ut vim Catharticam aſſequantur.

Quibus ex rationibus Hydrargyrum in Ptyaliſmo *nullum excitare fœtorem, ſatis conſtare puto. Vale, vir Doctiſſime, & me tibi commendatum habe. Dab. Amſtelodami è Muſæo meo, d.* 15 Junii, 1658.

Tuus

Henricus Roonhuyſius.

OBSERV.

OBSERV. II.

Of Wounds in the Head.

A. 1663. in the month of *February*, the Profeſſor *Gerhardus Leon. Blaſius* together with me, opened ſeveral bodies, in which he ſhewed, that the *dura mater* was every where ſo firmly cloſed to the skull, that we cauſed the Spectators to tear off ſeveral parts of it; deſiring them, that, if any of them in this laceration could find any place, where it was not cloſely united thereto, he would let us know it; we being aſſured, it would be found in all bodies, as we have ſaid. The manner, we obſerved in opening theſe Heads, was this: After that the skin was taken off the ordinary way, the Brain-pan was ſawed round about, and afterwards through the ſawed bone the *dura mater* was cut thorough with an Inciſion-knife; and then taking off the ſaid Brain-pan, we found, it ſtuck ſo faſt to it, that in the taking it off,

the whole *falx*, together with the *glandula pinealis*, remained firm to it. Thoſe who do ſtill doubt of the truth thereof, are deſired, for their ſatisfaction, to enquire into it after the ſaid manner, and then they will be able the better to conſider the operation of *Trepanning*. We ſhall now add an Obſervation or two about grievous Wounds of the Head, of which the Patients have been happily cured without the uſe of the *Trepan*.

One of them is this: *An.* 1662. I met with two ſad caſes near the ſame time; one of them was the child of a Braſier upon the *New ditch*, which had fallen down 18 or 20 ſteps, and by this fall received a wound in the left ſide of the Head, and with it no ſlight contuſion. Being called, I found the child ſenſleſs, vomiting, and invaded by all the grievous ſymptoms that a broken skull is wont to occaſion. The other child was in a Celler upon the firſt *Harlemer-ſluyſe*, which likewiſe had tumbled down from the top of the ſtairs to the bottom. Being

ſent

ſent for ſix days after, I found by the tokens, eſpecially the ſore contuſion, which over-ſpread more than half the Brain-pan, and the pain in one particular place, that there was a crack in the skull. Yet I proceeded in the cure of theſe two children after my uſual method, but with a very watchful eye; and, by God's bleſſing, I recovered them both; preſcribing them a good diet, and making uſe of the enſuing fomentation:

℞. *Rad. fœnic. ſarſaper. petroſel. an.* ℥ij,

Herb. Beton. m. j ß. *Anagallis, rutæ, artemiſiæ, an. m.* ß.

Flor. Melilot. p. iij. *Lavend. p.* ij.

Semin. Cumini ℥iij. *Fœnic. & baccarum lauri an.* ℥j.

Contundantur & coquantur in vino rubro; fiat s. a. Fomentum.

With this the Head was fomented twice aday; and after the fomentation, this Liniment was uſed, *viz.*

℞. *Ol. Myrtill. Laurini, an* ℥ij

Balſami ſulphur. ℥j. *Miſce, fiat linimentum.*

And after that the Head (the hair whereof was all ſhaved off) had been warmly anointed with this liniment, we employed this following Plaiſter.

℞. *Ceroti ex cumino* ℥ß.

Emp. de Betonic. ℥ij. *Miſce, f. Emplaſtrum.*

By the uſe of which ſanative means the ſymptoms daily diminiſhed, care being had, that theſe children might conſtantly have their bodies ſoluble; by all which they were well cured. I could recite divers other Examples; but theſe, I think, may ſuffice for a pattern, wiſhing they may without prejudice be followed.

As to the deſcription of the *Cerotum ex cumino*, that was left me by the highly experienced Mr. *Jacob van Roonhuyſe*, Chirurgion at the *Hague*, who in his time uſed it in all contuſions, doing thereby very conſiderable cures in caſes of dangerous wounds. Which therefore, for the publick good, I ſhall here communicate, *viz.*

℞. *Ce-*

℞. *Ceræ flavæ, Emplastri diacalcitheos an. lib.* ß.
Ol. Myrtillorum, Rosaceum, an. ℥iij.
Laurini ℥ij. *Baccæ Myrtillorum* ℥ij.
Seminis Cumini subtilissimè triti ℥vj. *Fiat s. a. Emplastrum.*

OBSERV. III.

Of a Wound in the Head.

Anno 1662. the 10*th Decemb.* being sent for to come to *Martin Jacobson* a Woodmonger, who, having rid upon the Ice after the manner of this Countrey, had unawares been run down by a sled, so that he fell back so forcibly, lighting with his head on some thing that was uneven, that from that concussion of the brain, accompanied with a fracture of the skull, he immediatly became speech-- and senseless, and was taken with a continued vomiting. Being brought home, where I came, I found him yet vomi-

ting, with little ſenſe, feveriſh, the hind-part of the head ſwollen and bruiſed, and great pain in one place; ſo that theſe and other ſymptoms ſuffered me not to doubt of a fracture of the skull. Whereupon I took from him, by way of revulſion, 8 ounces of blood from his right arm, and ordered an emollient Clyſter to be given him, and the wounded place of the head to be fomented twice a day with the following fomentation, warmed and applied with woollen rags;

℞. *Herb. Beton. m.* ℥ß. *Artem. Abſynth. Lauri, an. m.* j. *Flor. Melilot. Lavend. an. m.* ß. *Seminis cumini* ℥j. *Conciſ. ac. contus. coquantur in vino rubro, ad lib.* ß. *colatum; detur pro fomento.*

The fomentation being done, the pained place was anointed with this liniment,

℞. *Ol. Myrtil.* ℥ß. *Roſarum, caſtorei, an.* ℥ij. *Miſce, fiat linimentum.*

The next day we joyned with us the Phyſitian *Arnoldus Tholinx*, who having

having very ſcrupulouſly enquired into the circumſtances of this caſe, and the preſent condition of the Patient, ordered to go on in the method begun, adding thereunto a Purging ſyrup, and the day after, a convenient Apoſeeme, and ſome other neceſſary medicaments.

The *7th* day the Patient began to complain of great pain about his Ears, which was accompanied with a defluxion on his Eyes, and a loſs of his ſmell. The *8th.* day he loſt his Hearing. The *10th.* day he was ſomewhat better, and the Fever began to abate. The *12th.* day he diſcharged ſome coagulated blood by ſtool; whereupon the pain of his Ears grew leſs, and the running of his Eyes ceaſed, and his Hearing began to return to him. Afterwards, by continuing the fomentation and anointing, the ſwelling and the pain of the head abated from day to day; but then he complained of intolerable pain in the Backbone, which obliged us to apply the fomentation and anoirting to that

part alſo: By which means the pain ſunk lower and lower, unto the very *os coccygis*. After which he felt moſt pain in his Legs; but this alſo ceaſed by little and little; ſo that he was totally recovered, his ſwelling only excepted.

THE

THE SECOND OBSERVATION Of the *Cutting of Hare-mouths*;

In which

Is related the Manner of the Operation, and Cure,

Addressed to the Experienced

ROGIER ROGIERSE BEERENART

Chirurgion at Amsterdam.

Dear Collegue and Brother,

THe intimate friendship that is betwixt us engageth me to impart unto you something considerable of this argument, both for the exercise and improvement of the Art; hoping that by your learned and practical knowledg I may receive back again something that may further instruct me in this matter. Now, touching this Case, though it be not unknown to most Chirurgions, yet many of them are unskilful in the right me-

thod

thod and manner of proceeding therein; of which we ſee many ſuch ſad inſtances, that would make one prefer the not cutting of children at all, than occaſion by wrong operations ſuch marks, as render them hideous to be look'd upon.

Touching therefore the Cutting of *Haremouths*, every Chirurgion is not fit to perform it, for divers reaſons, (wherein *Johannes Tagaultius* conſents with me *in Generali ſua & compendiaria Chirurgorum inſtitutione* :) 1. There is required a ſteddy hand, without ſhaking, for the execution of the work. 2. There needs an aſſured confidence to cut an innocent child with a knife. 3. There is requiſite a good ſight, and a ready judgment, whereby, as ſoon as the inciſion under the Noſe is done, care may be taken, that the flux of blood may not cauſe any impediment for accompliſhing the operation. 4. The operator muſt have a good reſolution not to be put out by the child's crying; as alſo good skill to judg, how much each

lip

lip muſt loſe, and which of them is to loſe moſt; laſtly, to order it ſo, that the ſtitches of the cut-pieces of the lips may be exactly adjuſted together.

And 'tis true, that this Operation is to be performed with diſpatch; yet ſo as to remember the ſaying, *Sat Citò, ſi ſat tutò.* And to be ſhort, there is required in it a *Lions heart*, and a *Ladies hand*; or, according to *Joh. Tagaultius*,

In Chirurgo ſit audax & intrepidus animus in rebus tutis ac neceſſariis: In dubiis vero ac periculoſis, non admodum præceps.

You, *Sir*, that have ſeen me perform many of theſe operations, can bear me witneſs, I have not miſcarried in any of them, for which I thank God; of which I now intend to deliver ſome Obſervations.

The Upper-lip being cloven, it is a great deformity, ſometimes laying open one tooth, ſometimes two or three teeth of the upper Jaw. And ſometimes it is double-cleft, there remaining

maining only a piece between both, which, unleſs it be callous, needs not to be taken away; but it falls out ſometimes, that it hath ſuch a communication with the upper Jaw, as to be alſo, together with the palat of the mouth, parted altogether in two, and then to hinder the child's ſucking; one ſide of the upper Jaw-bone ſtanding out with a tooth or two, more than the other, without the lips: So that, when a part of the upper lip is deformed ſo as to reſemble the upper lip of an Hare, we call it an *Hares-mouth*, an Hare having always the upper lip cloven.

This deformity is cauſed by ſome fright and a ſtrong fancy; which puts me in mind of a Chimney-ſweepers wife, dwelling at the *Hague*, and big with child, who ſeeing a begger at her door, ſhewing her his Arm without a hand, was thereby ſo ſurpriſed and frighten'd, that falling, a few days after, in labour, was deliver'd of a child with a curtail'd arm, and wanting a hand. And *Fabritius Hildanus* in his *5th Obſervation of the 3d Part*, relates

relates another Example of a monſtrous birth, brought forth by the force of the mothers imagination without a prepuce, and that only becauſe ſhe had heard with a ſurpriſe a full and punctual narrative of the Jewiſh circumciſion.

And generally, that Frights and ſtrong imaginations of a woman with child are the principal Cauſes of Monſtrous births, daily Experience teaches; and there are few Monſters born but the cauſes of them may be referred to thoſe lately aſſigned. Yet we would not have this underſtood with an excluſion of the more hidden and Divine cauſe, whoſe operations many times ſurpaſſe our Underſtanding. As for Example, when it happens, that a woman, being very near her time, is ſurpriſed and frighted by the ſight of a man or woman wanting a limb, to wit, a hand, arm, or legg, and is 8 or 10 days after deliver'd of a child wanting ſuch a limb; this certainly is very wonderfull, the ſurpriſal and fright having happen'd

ſo

ſo near the time of her delivery: For, what becomes of the limb that's gone, or who can give an account of the manner how this extirpation is made? On the contrary, when it comes to paſs, that from the ſaid cauſes a limb is added, who can underſtand, that that can be done without a new Conception? Though an account may be given of the Monſtroſities that are made in the *firſt* formation, viz. either from the deficiency or redundancy of the ſeed, or alſo from frights and terrors ſupervening upon the firſt conception. If the time between the firſt conception and the entire formation of the *fœtus* (I mean, as to the ſhaping of what is eſſential to all the parts thereof,) be conſider'd, 'tis the common opinion, that that is effected in 42 dayes; though *Hippocrates* makes a diſtinction in reference to the ſex, aſſigning 30 days to the entire formation of a male, and 40 or 42 to that of a female; others aſſigning 45 days for the longeſt time, and 30 for the ſhorteſt.

Mean-

Mean-time *Laurentius* l. 8. *de formatione fœtus, vita et partu*, saith very well: *Quis primus sit conformationis dies, quis item ultimus, solus qui fœtum plasmavit novit Creator.* So that, in the received opinion, the Fruit must be perfect or imperfect in that time; if the seed be deficient the fœtus is imperfect; if superabounding, it may have 3 or 4 Arms or legs, or the like.

But to return to the operation of cutting *Haremouths*, we must first take notice, that it is more dangerous to perform it upon grown than young persons; though the dextrous and experienced M. *Peter Rogiertse* have performed it with good success upon a person of 28 years of age. And the younger such Haremouthed childern are cutt, the better it is, even whilst they are yet sucking; unless they be sick or weak: Mean-time there are those that cannot suck, viz. such as have their upper jaw cleft with the palat of the mouth. Add, that this operation is more conveni-

ently

ently and more ſafely performed in Summer then in Winter, in regard that warmth conduces to the ſpeedier healing up of the wounds : And upon the ſame account, 'tis better in Spring than in Autumn.

Now, Sir, as to the manner of the operation, and the Cure, I ſhall here relate unto you two conſiderable caſes of *Hare-mouths* which had both of them the upper jaw ſplit : other caſes need not to be here diſcourſed of, as being common enough, and of no difficult operation and cure.

I ſay then, that the Operator is above all to obſerve the ſtate of the Patients health, and whether he be well fed, and of a good conſtitution ; or whether he be ſubject to any Scorbutical or other diſeaſes, eſpecially if it be a full-grown perſon. He is alſo to conſider well, whether the defect be curable or not, before he proceed to the operation, that is to ſay, whether the loſs of part of the lip can be helped by the Re-union. And this you are to be ſatisfied of before

you

you undertake the work: For, ſometimes the upper jaw is with the lip parted in two, and there is a wide gap; though ſometimes in this very caſe a Cure is made: And if in this caſe the remaining part betwixt both lips be become callous, it muſt then be taken away, otherwiſe not.

In the operation it ſelf, you are to chuſe a very clear and lightſom place, and to put the child that is to be cut, in the lap of a diſcreet perſon, and to have a man ſtanding behind, to hold the head of the Patient conveniently, whoſe hands muſt be carefully tied up with ſwaths to keep them from ſtriving. Care alſo is to be had, that the child do not ſleep 10 or 12 hours immediately preceding the operation, that ſo it may be the better diſpoſed to ſleep preſently after it. Further, you will do well to have ready a glaſs of wine or ſome other good cordial for the child to take in caſe it ſhould faint upon the loſs of blood. There muſt be alſo at hand a baſon of luke-warm

water, a couple of ſpunges, ſome wieks, compreſſes and bands. Then take a ſharp inciſion-knife, with which the fleſh of the cheek lying under the upper lip, as alſo the fleſh of the noſe, may be conveniently ſe-ver'd.

And with a pair of ſharp ſciſſers you are dextrouſly and nimbly to cut away the edges of the gaping lips, as far as is neceſſary. You ought alſo to have ready a ſmall pair of cutting pincers, if need be to take away ſome prominent part of the jaw-bone when 'tis cleft in two: As alſo 5 or 6 ſilver needles, well wrought and three-angled, thredded with red carmeſyn ſtitch-ſilk, therewith to ſtitch and unite it together as ſoon as the needle is paſſed through. So then, the lips muſt be immediately ſtitch'd cloſe together with three needles, of which the *firſt* muſt paſs through as cloſe under the noſe as is poſſible; for by the means of this ſtitch there is leaſt danger of burſting out, firſt perforating with the needle that lip

which

which gapes wideſt. The *next* needle is to paſs through the moſt fleſhy part of the gaping lips; where the ſervant that at the inciſion was holding the head, muſt with his hands preſs the cheeks from behind forwards to the noſe, that ſo the ſtitching and faſtening may be the more commodiouſly performed, and there may alſo be the leſs danger of breaking out. The *third* ſtitch is to be made in the lowermoſt part of the lips; where care is to be had, that both the ſides may be taken as even as is poſſible. The needle muſt paſs through at leaſt a great ſtraws bredth from the edge of the gaping lip, to prevent laceration and burſting out; and it muſt come out at the oppoſite ſide with the ſame bredth. Each thread alſo ſticking in each needle is to be laid about it once or twice, to ſee whether the ſtitches come right and even; which is to be done as nimbly as you can, moiſtning the ſilk in luke-warm wine with a ſoft ſpunge, and laying the ſtitches very cloſe by means of the

ſilken-thread, turn'd too and fro about the needle. Which done, you are forthwith, b means of your cutting pincers, to nip off very cloſe the extant points of your needles, that they may not ſtand out, leaſt they ſhould cauſe ſome ulceration. After this, you are to moiſten the ſtitches with ſome Balſamick oil, by which means they may ſerve for wieks, laying on them a flat wiek, likewiſe moiſtned in the ſame oil. And faſtning on the ſides of the cheeks a ſticking and well-anointed plaiſter in the form of a collar ſtuffed with wooll, you are thereby to preſs the cheeks towards the noſe, and then bind it over with a compreſs, a little cut out about the noſe: Providing alſo on one ſide of the cap a ſmall band, thereby to ſecure, as hath been done by the plaiſter, the aforeſaid ſtitches. Care is to be had mean-while, that the Patient may have liberty to fetch his breath, and to ſuffer no ſtoppage of his noſtrils; giving him from time to time ſome ſyrup of violets to lick with a feather,

and

and very nouriſhing meat to eat. And in caſe the child have loſt much blood in the operation, and be thereby much weaken'd, then the matter is to be recommended to a skilful Phyſitian.

The next day the dreſſing is not to be medled with, except the band be remov'd out of its place. But the day after, it may be renew'd, taking care, that there be one to hold the Patients head again, and forcibly preſs the cheeks forwards, as was done at the inciſion; at the ſame time looſening the middle-ſtitch half way, and the other ſtitches from ſome of their turns, and veering them; whereby all ulceration will be prevented, which otherwiſe by the ſtreight lying of the threads might be occaſioned: At which time alſo you ought with your pincers to nip off very clear what may appear extant of the needles. The third time, the middle-ſtitch may be removed, and the other ſtitches are to be more veered 3 or 4 turns, and the dreſs to be ordered as before. The

fourth time, if you perceive the place, where the middle-ſtitch hath been made, to gape no more, nor the undermoſt, by the uſe of the ſyrup, than you are to draw out the uppermoſt ſtitch under the noſe, and to take again great heed thereof. And if the fourth time you do not much apprehend the childs crying and frowardneſs, you are then alſo to draw out that, or at leaſt looſen it more; for I never let the ſtitches lie till the *6th.* time, unleſs the children be very troubleſome and froward. The ſtitches then being taken out, the part is preſently to be dreſſed again as before. By which method, I bleſs God, I have cured many in four or five days.

I ſhall only admoniſh all young Chirurgions, to view and to conſider well this deformity before they meddle with the cure of it, leaſt they make it worſe than it was. And here they ought principally to take care, that the edges of the Lips may be duly and ſufficiently taken away, ſo that nothing may remain behind, and they,

being

being ſtill bloody, be immediately ſtitched together. But you need not let any blood run out, as *Jacques Guillemeau* would have it in the *ſecond Chapter* of his *Chymical Operations*. For, methinks, there runs out blood enough againſt our wills. But to give you more clearly my method of performing this operation, I ſhall ſet down a couple of Obſervations and Caſes, wherein I my ſelf have practiſed the ſame.

OBSERV. I.

Of a Hare-mouth in a young Child ſuccesfully cured.

Ann. 1661, the learned *Abraham Slingerland*, Chirurgion at the *Hague*, gave me a viſit, and adviſed with me about his child, born with a very unſightly *Hares-mouth*, asking me, whether I had any hopes of curing? I ſatisfied him by propoſing to him the manner thereof, and na-

ming divers I had cut in this City. The occaſion of his Childs deformity was, that his wife being with child was frighten'd with the out-cry of a fellow, wont to come from *Scheveling*, and to cry about the ſtreets of the *Hague*, Prawns. His wife was brought to bed, ſome weeks after, of this Child, that had its upper Lip gaping in the middle a fingers breadth, up to the partition of the Noſe; the left ſide of the Noſe and Lip being with great deformity drawn in and awry; and the upper Jaw-bone together with the Palat-bone ſplit in two, which made the great tooth and the upper Lip ſtand out, to the horror of every beholder. Now, having got ready all the means for the operation and cure, (deſcribed above,) we firſt implored the bleſſing of Almighty God, and then proceeded, in the preſence of the Famous *Francis vander Schagen*, and the Learned *Matthæus Sladus*, Phyſitians of this Town, and of M. *Rogier Rogierſe*, and M. *Aſia Wyma*, and other Chirurgi-

rurgions, after this manner:

I put the Child in anothers lap, to hold it, and there was another to hold its head; and then immediately uſing my little cutting-knife, I lifted up the left lip, and thruſt my knife an inches breadth into it, with one cut cutting through the fleſh of the cheek at once toward the Noſe, and preſently the other ſide likewiſe, ſo that the Noſe was ſeparated from the ſubjacent other parts, whereby I got ſufficient room. And having with my cutting pincers (made for it on purpoſe) taken away the prominent Jawbone, preſſing the lips together by the cheeks, as much as was poſſible, and cauſing them to be kept together by him that held the head; I went on in making the lips raw by ſteady and ſharp ſciſſers, preſently introducing through the bloody lips the upper needle, as cloſe to the noſe as I could, and with the other two needles ſtitching the lips evenly together. This done, I dried away the blood of the Childs mouth, and

waſhed

waſhed it out with a little wine, giving it ſomewhat to drink, and letting it breath a little. Then having duly cloſed the ſtitches, and laid them about with the ſilk in the needle, moiſtned with the balſom-oyl, I put upon it a flat wieck, ſecuring the dreſs with plaiſters and ſmall bands, to leave the noſtrils free. This done, I gave the Child a cordial, and ſome nouriſhing meat, as alſo ſome Syrup of Violets to lick, and ſo to anoint as 'twere the wound from beneath. The next day nothing was done as to the dreſs; but the third day, the middle needle was ſucceſfully taken out, and the part dreſſed as before. The fifth day the lowermoſt needle was taken out; and the ſixth day the uppermoſt was taken out; and the tenth day from the operation, the Child was freed from its dreſs and plaiſters, and went away in a good condition.

The words of the Mother, parting from me, were theſe; *I came to you with a Monſter, and now, God be praiſed*

praiſed, I go home with a well-ſha-ped Child, Farewel.

OBSERV. II.

Of a Hare-mouth, happily cured in a Child.

*A*N. 1662, I cut the Child of *Chriſtopher Groenwegen*, Reader at *Uytwick*, in the Country of *Altena*, whoſe deformity was every way alike to that of the former Child; which alſo was the reaſon of his coming to me, having underſtood and ſeen I had ſo ſucceſfully cured the Child at the *Hague*. This Child was fourteen weeks old, but could not ſuck. The operation was performed in the preſence of the Phyſitian *Paulus Barbette*, and M. *Rogier Rogierſe Bernaart*. Having taken away the moſt prominent part of the upper Jaw-bone, and parted with the knife the ſubjacent Cheek-fleſh, to fit it for our purpoſe, and having further with my ſciſſers made

made the lips raw, I ſtitched them together with three ſilver-needles, nipping off the extant ends of theſe needles with my cutting pincers. The third day I took away the middlemoſt needle, and dreſs'd the wound as above related; and the fifth day I took out with good ſucceſs the two other needles, ſo that the child was well the fifth day, which was the fifteenth week of the Childs age, and the tenth day it was carried home in perfect health.

AN

AN OBSERVATION Of a *WOUNDED NERVE* And Its CURE.

Written to the experienced Hubert Cock, *Chirurgion at* Woerden.

Worthy Friend,

I Could not omit to communicate to you this following Obſervation; *viz.* In the year 1662, the *14th* of *July*, I treated a certain woman, called *Elizabeth Adrians*, living upon the *Bickers* Iſland, who ſweeping the houſe, and taking up in her hand what ſhe had ſwept together, ſqueezed a pin, hidden amongſt it, into her hand, whereby a Nerve or Fibre was ſo wounded, that thereupon follow'd a Fever, great pain, and an inflammation and ſwelling of the whole hand; which accidents, partly

ly by her own knowledg, partly by ſome remedies of unskilful friends ſhe endeavoured to cure. But all proving ſucceſſleſs, I was at length called to her, which was the fourth day after thoſe accidents had befallen her. Being come to her, and having been inform'd of the caſe, I preſently dreſſed her hand with ſome topical remedies, and withal preſcribed her a good diet, as is neceſſary in all wounds in the nerves; not omitting purgative and other medicines, yet forbearing venæſection, becauſe ſhe was but thin and lean of body. I applied my ſelf to remove the pain, and to abate the inflammation and the afflux of humors, by widening the wound in the hand, and thereby, and by other means, to give vent to the humors rnnning thither. For, the worſt thing that can happer to a Fiber or Nerve, is the ſmalleſt wound, *viz.* a ſimple puncture by ſome ſharp inſtrument, or by glaſs, or fiſh-bones, or the like, by reaſon of its great ſenſibleneſs, whereupon preſently ſome grievous accidents enſue;

and

and this being the caſe here, the humors, there gathered together, had bred a ſwelling about the middle-joint of the little-finger, whoſe muſcle was alſo wounded. This we endeavoured to mend, but in vain. Wherefore aſſiſting nature by ſuppurating remedies, when the place affected broke, I found, the ligaments had been ſo pierced thorough, as to rot off and ſeparate, yet without corruption of the bone; and the middle-joint, upon the removal of the dreſs, fell out of it ſelf: Which notwithſtanding, the finger, after the wound was healed up, remained competently ſtiff, to my wonder, nor found the Patient any hindrance in working with that hand; by Nature's goodneſs the Nerves and Fibres drawing the outermoſt joint towards the lowermoſt.

ANSWER.

ANSWER.

To the foregoing letter; containing a Relation of a Cure performed upon a young woman, out of whose thigh a great piece of the bone was separated, without shortning her leg, or hindring the motion of her going.

Written to the Experienced

Henry *van* Roonhuyse,

Chirurgion in Ordinary to

the City of Amsterdam.

Worthy Friend,

My manifold businesses will, I hope, be some excuse for my tardy answer to your last letter, in which you were pleased to impart unto me that odd case of a pin run into a nerve of a hand, whereupon, by the afflux of humors, and a swelling caused thereby, the ligaments of the little finger, between the outer

and

and lowermoſt joint, were ſo rotted away, as that the middlemoſt joint was fallen out; and yet the Patient, upon the healing of the wound, not hindred in her working; Nature's bounty having been ſuch, as to make the Nerves and Fibres of the furthermoſt joint draw towards the lowermoſt.

We have here in this Town alſo a woman, whoſe middle-joint of the middle-finger was ſo bruiſed between a door, as to be broken to pieces, and, after that all the pieces were in time come out, the fore-joint, by the ſhrinking of the nerves and fibres was ſo conveniently drawn towards the hindmoſt, that ſhe hath been able for many years to do her work. But to let this paſs, I ſhall communicate to you a caſe, not long ſince happen'd, which ſeems more wonderful to me.

An. 1652. in the month of *July*, I was ſent for to come to the houſe of *Lambert Pontſen* of *Zeyſt*, a Corn-Merchant, to dreſs a daughter of his, *Gysseltie Lamberts*, of eight years of

age, that had always been very healthy and ſound, as, by God's bleſſing, ſhe is now again. Coming to her, I found her upon her bed, having her left leg ſo ſwelled from her hip to her foot, that her thigh was as thick as her middle, and ſo all over, that in divers weeks it could not be ſeen where the ſuperfluous humour did abound, and yet the colour of it was ſo natural, as that of her other thigh. Now, according to the received practice, the weakeſt part is firſt of all to be ſuccoured. Wherefore her leg being more burthen'd with ſerous humors, than troubled with outward pain, I endeavoured firſt of all to diſcharge her body, as well as I could, from thoſe humors, hoping, that her leg would thereupon be disburthened likewiſe, as it alſo did. For the whole became conſiderably thinner, eſpecially about the knee,and an hands-bredth above it,yet moſt on the outſide.Which ſeeing, I concluded, that *there* muſt be the root, whence had proceeded all the reſt; and accordingly I endeavour'd by

by the fitteſt Diſcutient means to diſcharge the outward parts: Whereupon not only the knee grew thinner, but alſo the ligaments, and conſequently the moving parts were ſo dried and corroborated, that ſhe was able about the tenth week to go without a ſtick; which gave her great hopes of recovering her perfect health in a ſhort time; but from that time I began to perceive a little ſpeck, appearing at firſt of the bigneſs of a field-bean, and of the colour uſually ſeen in veins burſt. This broke in the 13*th.* week, yet letting out nothing but an aqueous matter. The opening was three inches broad about the joint of the knee, on the outward ſide, between the two muſcles, called *flectens tibiam biceps*, and *quadrigeminorum quartus*; though about this place I can hardly count them for perfect muſcles, becauſe they do more reſemble ſinews or tendons; which hindred me to make the aperture bigger: Nor could I at firſt by any means get with my ſounding inſtru-

ment to the bone; though ſoon after I lighted upon the way, by the coming out of a little piece of ſeparated bone; which quite deprived me of the hopes of a ſhort cure. Having declared unto the Parents and their relations that were preſent this difficulty, they forthwith ſent for ſome of the moſt learned Phyſitians from ſeveral of the chiefeſt Towns here-about; with whom having conſulted divers times, they agreed almoſt all in this, that there was no hope of fully curing this accident, unleſs the place were cut up as far as was neceſſary, to the very bone, that ſo the place corrupted might be cauteriſed, by this means to dry up the putrifying humidity. I acknowledged indeed, that this would be a very good means to prevent the further progreſs of the bones corruption; but foraſmuch as this young woman was fleſhy and pretty fat, the opening muſt have been made, by conjecture, about three inches deep, before I could have come to the bone; and this would have made the cauteriſation

riſation difficult, as the opening would have been dangerous; foraſmuch as the afore-named parts could not have been paſſed without wounding them. And let the cauterization be made never ſo warily, if there be ſuch parts as fibres and nerves, ſerving for motion, though they be not touch'd, yet they will by the approached cautery be dried, and ſhrink, and ſo loſe the perfection of motion. To this I added, that after all was done to the outer-ſide what could be done, yet we were not ſure, that the ſhin-bone was not corrupted within, where the cutting was yet leſs ſecure than without, by reaſon of the great veins and arteries. Theſe my conſiderations were well received by the Learned Dr. *Iſbrand Diemerbroeck*, Profeſſor of Phyſick at *Utrecht*; and it appeared ſoon after, that they were not unneceſſary: For there alſo broke out a hole on the in-ſide, out of which preſently came forth little bones; whereupon we all were glad, that we had not taken the former way. Mean-time the afore-

ſaid Phyſitian preſcribed the Patient a good diet, and enjoyned me to take care of the external Chirurgical part; as I alſo did for about a year together, during which time there iſſued many little bones; yet I could not cure her all that while, though I employed many applications. The Parents, being very eager to have her cured, did reſolve to make uſe of other Phyſitians and Chirurgions, diſmiſſing me, in hopes to light upon ſome other perſon, that might recover their daughter without cutting or burning; and accordingly they enquired after able perſons in moſt of our Towns, and in *Brabant* alſo; but all in vain: For, during the ſpace of near nine years, this iſſuing of little pieces of bone continued. And foraſmuch as in ſuch caſes as theſe all ſorts of people, the ignorant as well as the skilful, are forward to adviſe, the Parents did ſo far conſider me, though their daughter was not then my Patient, as to ſend for me to hear my judgment of the reſpective ad-

vices

vices that were given them; declaring, that if it ſhould ſtill be neceſſary to proceed to cutting and burning, no other perſon ſhould be employed therein but I: Which was done at laſt in the tenth year, after this manner;

After I had in the two laſt years now and then ſounded the part, I found at the very firſt that I felt the bone, which at firſt was three inches deep; but in the laſt year of all the bone was got ſo near outward, that nothing but the skin remained over it. And ſome times I uſed things to make the openning wider: ſo that I got-in ſeveral pincers, with which I held faſt the bone; yet without being able to move it any more than if it had been the whole bone; ſo firmly, was it wedged-in between the *callus* grown within the ambient fibres and the skin, which had thruſt it outwards, whereby it came to paſs, that ſhe was not able in 18 months to bend her legg. She growning at length impatient, and unwilling thus to ſit and ſleep any longer with a leg

always ſtretcht out at length, which was accompanied with great pain, ſo that ſome times ſhe could not go at all; ſhe did, with her Parents and Friends conſent and approbation, ſend for me again, and made uſe of me as her conſtant Chirurgion, as I had been before. She herſelf was very reſolute, declaring, that ſhe would patiently endure all what ſhould be thought neceſſary and fit to be done. Whereupon I did firſt of all widen the opening by tumifying remedies, ſo that in a few days I became ſatisfied about the manner of the poſition of the fragment, though I could not yet come to know how big it was, which latter circumſtance obliged me to make the aperture wider; to which the Patient readily conſented upon my aſſuring her, it might be done without danger. This then being done as was required, I then needed no more to make uſe of any founding inſtrument, but could then ſatisfy my ſelf by my fingers, which informed me, that,

where-

whereas I and many others had fancied it to be a great flat ſlice of bone, I now found it to be a round piece coming out of the whole Shin-bone. Whereupon I introduced into the hollow of the bone one cheek of a very ſtrong pair of pincers, as deep as I could; the other I faſtened without, and ſo having ſqueeſed them together, I tried whether I could turn it, which I found I could do: And then I prayed her to have patience for a little while and to be couragious, promiſing her to give ſhortly into her own hands the fragment of the bone that had ſo long troubled her; which ſoon after I did accordingly (God be praiſed,) with little effuſion of blood. The ſaid fragment was as thick and long as appears in *Fig.*4; which I have cauſed to be drawn with great exactneſs, as to the thickneſs, roundneſs, hollowneſs and length, repreſenting alſo the parts eaten out, of the corrupted bone. Mean time I keep by me the piece it ſelf, to ſhew to the Curious.

Now

Now, though the bleeding was not much, yet it hindred me from feeling frome thing elſe ; which made me fill up the whole cavity quite full with ſhavings of rags , to dreſs it the better. The next day having open'd it and taken out all, I felt with my fingers, how all things were within, and I then found two ſmall pieces of bone more, which the day before had been broken off from the great piece ; which could perfectly be ſeen, by joyning them to it : And theſe were the two laſt bits that came forth.

Here it may be ſaid, that, ſeeing this Fragment, taken out, hath on both ends ſuch points and tags, there muſt needs be ſuch others in the thigh-bone, correſponding to them; and why were they not felt too, there being ſuch room for it. I anſwer, that 'twas not ſo here, becauſe nature had filled up thoſe vacuities with a *callus* ſo perfectly, as if never any bone had come forth thence, and both ends were ſo neatly joined together by

by natures contrivance, that Art could not mend it. So that She hath here effected both the ſeparation, and the union; which is the more to be wondred at, becauſe the Patient had lain little a-bed during the greateſt part of the time that ſhe hath been afflicted with this accident; only when a little piece of bone got looſe, that pricked her; then ſhe was conſtrained to keep her ſelf quiet. She went up and down, as well as ſhe could, to the very day that I took out the great fragment, coming out of her bed-chamber into the room where we were, which was more lightſome. The ſaid fragment being taken out, ſhe remained ſitting upon a cuſhion, and towards evening went from her chair to her bed. What applications were further made to render the cure compleat, I ſhall, for brevities ſake, paſs by. As to her preſent condition, ſhe is, by the goodneſs of God, ſo well, that ſhe can ſtretch out and draw-in her leg, and can walk on it as well as on the other, for two or three hours toge-

ther;

ther; and both legs are of the same length and thickness, so as that hardly any difference can be perceived between them. I am,

SIR,

Your friend to serve you

HUBERTUS COCK.

Woerden the 28*th. Octob.* 1662.

FINIS.

Advertisement.

THe *Remedies that are required to discharge the Gout, are now to be had of* Moses Pitt, *at the Angel in St.* Paul's *Church-yard,* Bookseller, *with a paper to instruct those that are desirous to learn the way of Burning with* Moxa, *and to shew the manner thereof; in case there be any body that shall think it not clearly enough delivered in this Book.*

A

TABLE to the Second Part of this Book, containing some *Medico-Chirurgical* Observations and Practices,

1. OF *a strange Rupture of the* Uterus; *together with several such remarkable Accidents concerning that part, and the happy Cure of them*, p. 1. & seq.

2. *Of the Cæsarean Section, largely*, p. 23. & seq.

3. *Of the Falling down of the Womb, and its Cure; together with a Case of its Extirpation*, p. 61. & seq.

4. *Of Conceptions without the Womb*, p. 74. & seq.

5. *Of Wombs shut up, together with the Signs and Causes thereof, as also the manner of Opening and Curing them*, p. 83. & seq.

6. *Of a closed* Vagina Uteri *caused by Nature*, p. 96.

7. *Of a closed* Vagina Uteri *caused by a Gangrene*, p. 100.

8. *Of a* Vagina *not quite closed, occasioned by a Wound given by a fœtus*, p. 103.

9. *Of the happy Cure of a young Child's Fundament, which was almost totally closed*, p. 115.

10. *Of a little child with a closed Fundament, whose opening was endeavour'd in vain*, p. 117.

11. *Of the Rupture of the* Bladder, *together with the Signs, Causes, Prognosticks, and Cure thereof*, p. 121. & seq.

12. *Of the firm union of the* dura mater *to the skull*, p. 141. & seq.

13. *Of the modern use and abuse of Trepanning; and that this Operation is not so often necessary, nor useful, as 'tis vulgarly used*, p. 149.

14. Of

A TABLE.

14. *Of grievous Wounds in the Head, well cured without the use of the Trepan*, p. 166. & 169.

15. *Of the Cutting of Hare-mouths; in which is delivered the manner of the Operation and Cure*, p. 173.

16. *Of an* Hare-mouth *succesfully cured in a young Child*, p. 187.

17. *Of another Hare-mouth, well cured in a Child*, p. 191.

18. *An Observation of a wounded* Nerve, *and its Cure*, p. 193.

19. *A Relation of a Cure performed upon a young Woman, out of whose thigh a great piece of the bone was separated, without shortning her leg, or hindring the motion of her going.*

ERRATA.

In Medico-Chirurgical Observations.

PAge 8. l. 21. read *nouuelle*. p. 36. l. 19. r. *possunt*. p. 67. l. 7. r. *mel chelidoniæ*. p. 152. l. 20. r. *Physitian* for *Chirurgion*.

Books

Books sold by Moſes Pitt, *at the Angel in St.* Paul's *Church-yard.*

LE *Blanc.* Theſes Theol. *fol.* 1675.
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Dr. *Pell's* Introduction to *Algebra* 7*s.*
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